The Development of Criminal Justice Performance and Activity Measures

Province of
British Columbia
Ministry of
Attorney General
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ATTORNEY GENERAL

THE DEVELOPMENT

OF CRIMINAL JUSTICE PERFORMANCE AND

ACTIVITY MEASURES

National Work Group Project Four

Sponsored by:

Ministry of Attorney General,
Province of B.C. and
National Work Group on Justice
Information and Statistics.

Report prepared by:

Policy Planning Division
Ministry of Attorney General
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Final Report
January 1982

Canadian Cataloguing in Publication Data
Main entry under title:
The Development of criminal justice performance and activity measures

"National Work Group Project Four".
"Sponsored by: Ministry of Attorney General, Province of B.C. and National Work Group on Justice Information and Statistics".
"Final report".
Bibliography: p.
ISBN 0-7719-8919-9

1. Criminal justice, Administration of - British Columbia - Evaluation. 2. Criminal justice, Administration of - Canada - Evaluation. 3. British Columbia. Ministry of Attorney General. I. Hartman, D. M. II. British Columbia. Ministry of Attorney General. Policy Planning Division. III. National Work Group on Justice Information and Statistics (Canada)

KEB570.A72A8 354.711068'8 C82-092126-2

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ACKNOWLEDGEMENT

This report is the result of a joint Provincial/Federal initiative in the area of Justice Statistics. The project initially developed with an agreement between the Ministry of Attorney General, Province of British Columbia and the National Work Group on Justice Information and Statistics. Project continuity was maintained when the National Work Group was subsumed by the Canadian Centre for Justice Statistics on April 1, 1981. The Technical Assistance Directorate of the Centre, then became the Federal partner in this exercise. The Ministry of Attorney General acknowledges the support of Statistics Canada, the National Work Group, and the Centre, throughout this project. As well we would like to thank the other provinces who contributed material to this project. Particular support was given by the Provinces of Alberta, Quebec and New Brunswick.

EXECUTIVE SUMMARY

This final report on National Work Group Project Four, is comprised of three major sections. Section one contains a description and history of events leading up to the project and efforts to get it underway. It also contains a description of the ministry, its various functional components, together with the objectives for each function.

Section two of the report contains the specific terms of reference for the project and some general comments regarding problems associated with developing performance indicators. Specific provincial system-wide initiatives in this area, and the key indicator summary formats that were developed during the course of Project Four, are described.

Section three of this report describes the implementation process and a procedure for future development. Examples of how some of the data was presented and a brief description of the methodology employed in the forecasts are also included in this section. The several appendicies

to this report contain an elaboration of certain material presented in the body of the report.

It is appropriate at this point to clarify any assumptions and expectations about the contents of this report. It does not purport to be a prescriptive package containing a definitive list of activity and performance measures. To those readers who may be looking for "the answer" to satisfy a particular Minister's demands for "relevant statistics", numbering, of course, less than five, or central agency demands for quantitive measures of program effectiveness and efficiency - which must certainly fit within a one inch by three inch space on a budget sheet - the writers offer their sincere apologies. Valid as the demands of Ministers of the Crown, Treasury Boards, Statistics Canada and even the public may be, the problems associated with identifying and obtaining agreement on what might be called "key indicators" of activity and performance are such that we cannot claim to have found a definitive list to fit every situation.

Firstly, it is important to recognize that Project Four is not self contained, in the sense that the work began with

receipt of federal funding assistance and is completed with the submission of this report. Efforts at developing improved information systems for management control and planning purposes, systems which obviously require quantitative information on levels of activity and performance, have been underway within the British Coumbia Ministry of Attorney General since the early 1970's. Over the last two years, for a variety of reasons, those efforts have been intensified and the specific initiative identified as National Work Group Project Four is best viewed as a phase of that larger and longer term effort. This report is, therefore, best considered as a progress report on this Ministry's experience in the process of implementing improved procedures for management planning and control.

Secondly, this report emphasizes the process being followed and the framework being used to implement a particular system of activity and performance measurement. It is the approach, rather than the actual indicators themselves, which may be of most interest to other jurisdictions in their attempt to develop procedures for activity and

performance measurement. The approach adopted within the B.C. Ministry of Attorney General emphasizes the following:

1. The identification of indicators which can be supported by existing data bases and, hence, can be utilized without extensive modifications to existing operational and management information systems;

2. The development of concensus among senior managers within the operational divisions and Ministry headquarters regarding the utility of activity and performance measurement in general and the appropriateness of specifically identified measures in particular;

3. The need to integrate the activity and performance measurement process within a more general framework of strategic planning for management control; and

4. The importance of linking activity and performance measures to historic and current expenditure levels.

As such, the approach can be described as pragmatic and management oriented. It is not, except in an incidental way, intended to contribute to rigorous "program evaluation" as that concept is generally understood. It has been the experience of this province that a relatively immediate benefit to senior executives can be realized through the analysis of a relatively few, easily available, quantitative measures when that analysis fulfills immediate and important management needs, such as the acquisition and allocation of budget resources. It is the writers' advice to other jurisdictions that procedures for activity and performance measurement can most successfully be implemented, in both the short and long terms, when the potential benefits are made explicit and demonstrated to senior managers in graphic and financial terms.

It is our conclusion that this project has been successful primarily because of the relatively simple and pragmatic approach adopted. On the basis of the work done to date, the writers offer the following suggestions:

1. The overall process <u>must</u> be kept simple. This is particularly true in the early stages of development when it is essential to assist senior executives in understanding the process and generating their support for it. The analyst must avoid the temptation of moving immediately to sophisticated modelling techniques and run the risk of generating information incomprehensible to senior managers.

2. The performance and activity measures must be tied to the operational budget process. If this is not done then it is very easy for senior managers to view the process as an abstract conceptual exercise with no relevance to the operational and budgetary concerns.

3. Completely integrated system wide offender tracking systems are not a necessary first step for better management statistics. While the "ideal" tracking system may remain something towards which the E.D.P. professional may strive, it must be clearly recognized that there are serious organizational and political barriers that must first be overcome. Far too often, in pursuit of the "ideal", some very simple operations

research techniques, such as ratio-analysis, are forgotten and ignored.

4. Sophisticated models are not a requirement for analysis to have impact. A necessary first step in the process of improving the capabilities of senior managers to control program operations is the generation of basic descriptive statistics that illustrate general activity levels and historical trends in caseloads and expenditures.

PART ONE - BACKGROUND TO THE PROJECT

Part I of this report outlines the terms of reference under which the project proceeded and describes the context within which the project was viewed by the senior executives of the Ministry. It also provides an overview of the structure and functions of the Ministry of Attorney General in British Columbia.

CHAPTER I. INTRODUCTION

The impetus for federal support for this project grew out of the recommendations contained in the first progress report of the National Work Group on Justice Information and Statistics (N.W.G.). British Columbia agreed to undertake preliminary work aimed at determining the "feasibility" of developing activity measures for the Criminal Justice System (as background to N.W.G. Project 4). As a result of that work, the Federal/Provincial Steering Committee (F.P.S.C.) adopted the preliminary findings of the study team suggesting the establishment of an operational project to identify and implement, on a trial basis, a set of activity and performance measures. On the basis of an application by British Columbia

for N.W.G. assistance, the N.W.G. recommended to the Federal/Provincial Steering Committee (F.P.S.C.) that Federal Government money be made available to contribute to the salary of a project manager for this task. Approval was granted to the B.C. application and a contract drawn up in February of 1980. The British Columbia Ministry of Attorney General, in turn, approved the terms of the agreement in early March of that year.

A. A First Conceptualization

The initial outline for the project followed the classical and traditional model and included the following elements.

1. Description

The starting point for the project was to consist of the development of "program inventories", containing detailed program descriptions, for all activities and/or cost centres in the system. These inventories were to contain the following:

a) Goals and objectives of the programs and their relationship to those of the criminal justice system;

b) Description of the major activities within each program and their relationship to stated goals and objectives;

c) Historical description of the programs' development in both quantitative and qualitative terms focussing on estimates, expenditure, staffing levels, delivery points, client service and other immediately available statistical information;

d) Discussion of recent developments which have had an impact on program activities, current problems and future plans;

e) Description of existing information systems and the activity and performance measures used for operational and management purposes; and

f) Description of perceived information requirements of program and senior managers, including activity and performance measures.

These program inventories were to be prepared by program managers having responsibility for their divisions' administration and their analysts. This work would form the basis for further detailed "program reviews" that would focus on:

a) the appropriateness of the statements of goals and objectives and their agreement with those of other programs with the larger system;

b) the theoretical relationship between goals and objectives, and the activities carried out by the program;

c) the appropriateness of existing measures in relation to:

i) goals and objectives:

ii) requirements identified by program managers and staff;

iii) requirements identified for the Ministry Executive:

iv) requirements identified by the federal government;

v) program evaluation; and

vi) research and development; and

d) alternative measures appropriate to the above.

While the review of goals and objectives was to form the basis of a report to the N.W.G., the major task of the project staff was to obtain agreement on developing statements of goals and quantifiable objectives.

This program review was to serve as a means of identifying those measures which appear to have theoretical and practical relevance. The number and complexity of the measures, the degree to which they are already in use and their compatability with existing information systems, would then determine the implementation strategies and time frames for the

remainder of the project. It was anticipated that this detailed review would logically proceed on a program by program, component by component basis. Review reports were to be prepared for each component, with these reports forming the basis for discussions with divisions on the implementation of recommendations regarding activity and performance measurement.

Initial project costs for the 12 months were thought to be in the neighbourhood of $111,000 with the B.C. Ministry absorbing all costs, including travel and office space. It was requested, that the N.W.G. contribute $29,000 to the project which would partially cover the cost of hiring a project manager at the senior analyst level. The following payment schedule was proposed:

i) 1st installment payment of $7,250.00 on signing of contract.

ii) 2nd installment payment of $7,250.00 on July 15, 1980 upon satisfactory progress review by N.W.G.

iii) 3rd installment payment of $7,250.00 on October 15, 1980 upon satisfactory progress review by N.W.G.

iv) Last installment payment $7,250.00 on January 31, 1980 upon satisfactory progress review by N.W.G. and completion of a draft "final report to the N.W.G."

2. Time Frame

This request for federal assistance was to cover a 12 month period during which it was anticipated that the bulk of the work outlined above was to be completed or well under away. When the original time frame of January 1 to December 31, 1980 proved to be unrealistic it was then proposed that the one year funding period begin from the date on which the contract was signed and that the final report to N.W.G. would be due one year from the date on which the project manager was hired. This change was agreed to as the British Columbia Treasury Board and Cabinet procedures required that the contract be approved and their permission received before a project manager could be hired.

Given the scope and potential impact of this project, and its relationship to the other initiatives being undertaken by the Ministry, flexibility of plan

and timetable was perceived as an essential ingredient by British Columbia.

Because the N.W.G. project was viewed as only one part of a larger evolving process the order and intensity, in which "program reviews" of the various components were undertaken, were determined by existing Ministry and divisional priorities.

3. Accountability

Overall Ministry responsibility for the project fell to the Assistant Deputy Attorney General for Policy Planning, with the direct supervisory responsibility for the Project Manager falling to the Director of the Policy and Program Analysis Unit.

An advisory committee of senior managers from the Ministry's divisions was to be established that would ensure a direct link between the divisions and the staff working on the project.

B. Context in which the Project was Finalized

The spirit and intent of the original proposal has been closely followed throughout the actual project. Because of organizational changes and shifting priorities within

the Ministry, as well as the length of time between the initial proposal and the actual start date of the project, changes to the project scope were inevitable.

What follows is a description of the project as finally agreed to by N.W.G. representatives and Ministry project staff.

Provincial interest in this project results largely from the Ministry's past experience in developing management information systems. In the past there have been several attempts at identifying activity and performance measures, primarily in relation to P.P.B.S. and Z.B.B. budgeting procedures. There has not been any concerted effort to implement the measurement systems proposed or to test the utility of the measures identified. However, by 1980, the Ministry had sufficiently developed various sector-specific data bases, to permit a more detailed examination of both the appropriateness and the potential utility of the various proposed measures. The first major objective, from the Ministry's point of view, was: **to develop a shared appreciation and awareness in the various sectors of the role, utility, and definition of activity and performance indicators; and to utilize currently existing data to develop and test a preliminary set of indicators.**

The second incentive for this Ministry relates to the establishment of a Provincial Treasury Board staff function and an increased emphasis on program evaluation from that quarter. Some divisions of the Ministry were already involved with the Policy Planning Division in a general process of developing better evaluative procedures. It was opportune to include in this process the investigation of activity and performance measurement. The N.W.G. project was, therefore, seen as complementary to this overall process being at once more limited, in that it focused only on the criminal justice sectors of the Ministry, but also more general, in that it had the potential to stimulate an awareness of the need for more comprehensive and interrelated measures in all major sectors and programs of the Ministry of Attorney General. Specifically, this project concentrated on the police, court and correctional sectors of Justice. Juvenile Justice Services were not included within the scope of the project, except insofar as they relate to the Corrections sector. The second major objective from the Ministry point of view then became: to **summarize data currently produced by Police, Courts and Corrections for use by senior management and to explore the potential utility of using this data both in support of the budget process and as an aid in the determining of long term (strategic) priorities.**

CHAPTER II OUTLINE OF THE MINISTRY

The Ministry of Attorney General is responsible for the administration of Justice in the province, for the enforcement of laws, for the protection of persons and property, and for the provision of legal services to the provincial government.

In operational terms, the Ministry of Attorney General has attempted to develop management structures which reflect an integrated Ministry, responsible for virtually all aspects of the administration of justice in the Province. Policy and decisions affecting various components of the Ministry are made by an Executive Committee consisting of the Deputy Attorney General, the Commissioner of Corrections, the Assistant Deputy Attorneys General and Assistant Deputy Ministers heading the various divisions. This executive structure is reflected in the regions by regional management committees consisting of the regional managers of each operational Ministry division.

Implementation of a decentralized management structure for the Ministry began in 1976 in an attempt to achieve both integration - supporting the systemic view of justice - and regional decentralization, allowing for local community input and the accommodation of regional differences in service delivery.

The Attorney General being not only the administrative head of the Ministry, but also "Queen's Attorney", is charged with functions and responsibilities deeply rooted in the history and function of democratic government. He presides over the Ministry, is answerable in the Legislature for the conduct of his Ministry, and in addition, must see that Government legislation enters the Legislature in proper form. In addition, the Ministry provides legal services to the government, including legal advice, for specific ministry matters and, more generally, advice on matters of federal/provincial jurisdiction.

At a functional level, these responsibilities can be broadly grouped into four areas:

- Administration of Justice
- Regulatory Boards and Commissions
- Legal Services to Government
- Administration and Support

At an organizational level, the Ministry is comprised of seven major divisions:

- Police Services Division
- Court Services Division
- Criminal Justice Division
- Correction Branch

- Legal Services to Government
- Support and Regulatory Services
- Policy Planning Division

In addition, there are a number of Boards, Commissions and Societies which report, for administrative purposes, to the Attorney General or various members of the Executive Committee.

The first four divisions listed above have primary responsibility for the administration of justice. In terms of total Ministry expenditures, this function consumes a substantial portion of those expenditures and represents some 71 percent of total budget and 85 percent of total Ministry Staff.

The functional and organizational levels are shown in chart 1 on page 27.

A. Administration of Justice

The Administration of Justice has widespread social impacts, both within the Province, and the country as a whole. The importance of this function to the social fabric of the nation cannot be overstated. Consequently, strong interconnections can be seen between Provincial and Federal involvement in the

Administration of Justice. Some of these interconnections are incorporated within the B.N.A. Act, while others, like the Criminal Code, and provincial Motor Vehicle Acts, are more specific legislation which, however, have very widespread influences on society as we know it.

1. Police Services Division

The Police Services Division is responsible for providing overall policy direction for the law enforcement activities within the Province. It has specific responsibility for the Coordinated Law Enforcement Unit, Provincial Policing and the British Columbia Police Commission. In addition, it has recently assumed responsibility for the Counter Attack Impaired Driving Program and has established a headquarters policy unit with overall responsibility for the coordination of policing policies.

In terms of Project Four, it is primarily the provincial and municipal policing activities that are of interest. Briefly, provincial policing duties are carried out by the R.C.M. Police under contract to the Province. As of December 31, 1981, the Provincial Forces Establishment was 1,490 regular members. Under the terms of the Police Act (R.S.B.C., 1979), all municipalities with populations over 5,000 persons assume the responsibility for their policing services. Twelve municipalities operate their own forces while the remaining

contract with the R.C.M. Police. As of the end of December, 1981, there were 1,660 regular members in the self-policing municipalities and 1,640 regular members of the R.C.M. Police performing municipal policing duties. As well, there were 585 Federal Force members.

2. Court Services Division

The Court Services Division is responsible for the administration of all levels of court within British Columbia and for the design, construction and maintenance of all court buildings. The Division services approximately 100 court locations, including Provincial Court, B.C. Court of Appeal, County Court and Supreme Court levels. The major services delivered are court administration, sheriff services and reporting and recording services. In addition, the Division provides a headquarters support and planning function, training and information services, a tracing unit and services relating to the reciprocal enforcement of maintenance orders.

The focus of the work of Project Four was the Provincial Criminal Court, as little management information is available in relation to criminal cases heard in the Superior Courts.

3. Criminal Justice Division

The Criminal Justice Division advises all government Ministries on matters of criminal law but is primarily responsible for the

prosecution of Criminal Code and Provincial Statute Offences throughout the Province. As of December 31, 1981, there were 167 Crown Counsel and 113 Support Staff throughout the Province. The Division also makes use of Ad Hoc Counsel to complement the staff Crown.

4. Corrections Branch

The Corrections Branch is administered by the Commissioner of Corrections and is responsible for youth and adult probation services, family court counselling and the operation of Provincial Correctional institutions for adults and youths remanded and sentenced for offences. The Branch has a staff in excess of 2,000.

Provincial institutions house those imprisoned up to two years less a day while Federal penitentiaries are responsible for persons sentenced to terms of two years or more. However, under the Federal Provincial Exchange of Services Agreement, offenders may be transferred between jurisdictions.

There are 6 secure adult custody facilities for sentenced and remanded inmates; 5 for males and 1 for females. In addition, the Branch provides two secure containment centres for youths found delinquent under the Juvenile Delinquents Act. There are twelve minimum security "open" facilities, including farms and

forest camps which accomodate sentenced adult offenders and two such facilities for youths. Community Correctional Centres (CCC's) and Community Based Residential Centre's (CBRC's) provide supervised accomodation within communities for the last phase of an offender's sentence to facilitate re-entry into the community. Nine CCC's are operated by Corrections Branch staff, while the CBRC's are staffed and operated by private agencies with branch funding.

Probation and Family Court Counselling Services are provided in over 80 offices throughout the Province. Included in the services provided are probation, supervision for adults and juveniles, pre-trial supervision of persons released from custody and the provision of counselling services under the Family Relations Act.

B. Regulatory Boards and Commissions

The Attorney General, as Queen's Attorney and as administrative head of the Ministry, is charged with other diverse functions related to justice. Included in these is the regulatory component which performs justice-related activities that do not readily fit into the traditional justice areas but help ensure public safety, and thus are of vital social importance.

C. Legal Services to Goverment

The Legal Services to Government Division provides coordination and direction for provincial public sector legal services in British Columbia. It provides legal advice for provincial government ministries, drafts and revises legislation and provides advice in federal-provincial and inter-governmental areas of jurisdiction.

The concept of the "public sector law firm" serves as the philosophical rationale underlying many of the policies and programs now being pursued by the Legal Services to Government Division. The emphasis behind the "public sector law firm" concept is the movement away from a reliance upon private sector legal assistance in tackling government problems to one of developing an in-house capacity of provide such services. For example, legal staff in the division are now handle transactions such as the acquisition of lands, businesses and hospitals which were previously contracted out to the private bar. An increased level of government activity anticipated in the future means that public lawyers will be in greater demand and be exposed to a greater variety of government legal work.

The current organizational structure for this division consists of five branches: Civil Law; Civil Litigation; Public Trustee; Legislative Counsel; and Constitutional and Administrative Law.

Additionally, the Statute Revision and the Legal Services Society are closely related to the programs and policies of the division.

From an economic perspective, the division's estimated expenditures play a very minor budgetary role in terms of total ministry spending, but the importance of the Legal Services to Government Division surfaces in its role as a centralized co-ordinating agent which influences the shape of all provincial government policies, programs and legislation. It also represents British Columbia's interests in Federal-Provincial and intergovernmental situations. It is difficult to quantify the division's contribution to the Ministry, or the provincial government, as it often deals with the outcome of constitutional negotiations with the federal government, the settling of administrative law questions, and the representation of British Columbia's interests to other governments, companies and individuals which can have far reaching economic, social and political consequences.

D. Administration and Support

The major responsibility of the headquarters Support and Regulatory Services Division includes financial and administrative services, personnel services, library services and the registration of land titles. Included in the finance

and administration branch of the Division is the responsibility for facilities management and data services.

The Policy Planning Division consists of three components; the Policy Program Analysis Unit, Research and Evaluation Unit and the Special Projects Branch. Its responsibilities include the coordination of policy development, long term planning, research and evaluation, grant funding of demonstration projects and private agency programs, and the development and management of special projects for the Ministry.

E. General Policy Assumptions and Objectives

1. Administration of Justice

General policies for the Administration of Justice stem from the prevailing social values (Thorvaldson, 1979) within which our system of justice operates. From the perspective of performance measurement, the absence of clearly defined quantifiable objectives is a limiting factor. However, there are a number of fundamental social values reflected in our system of justice and these values provide direction for the interpretation of quantitative measures relating to the administration of justice. These values represent operational principles rather than specific objectives and include the following:

- Equal Justice - This concept requires that the law be applied equally, consistently and uniformly to all citizens, both in procedures and in the consequences imposed for similar infractions committed under similar circumstances. The term 'fairness' is often used to describe this aspect of justice.
- Equitable Justice - This is a concept of proportional justice, reciprocity or equity, which holds that wrongdoers be made to suffer only according to what they are deemed to 'deserve', or to repay in some form commensurate with the harm or damage done and the culpability, or wilfulness of their intent; no more and no less.
- Humanitarianism - This concept holds that all citizens subject to the justice process be treated with the courtesy, respect and consideration consistent with basic human needs, and that the consequences for offences be administered with compassion.

  Humanitarianism comes into conflict with the notion of equitable justice since this principle demands moral responsibility, while humanitarianism stresses understanding.
- Freedom (or Individualism) - This is the fundamental political value of our society which limits the power of the state in controlling citizens and ensuring

order. It implies that the law be framed and administered with caution and restraint, that the offender is innocent until proven guilty, that there exists no reasonable doubt about guilt.

- Democracy - This implies that all procedures are accessible, understandable, affordable and visible to the public; that there is ample opportunity to participate in the process and that the people can control and receive the benefit from the process.
- Economy - Society clearly can afford to spend only so much in terms of its material resources on social programs, including the achievement of peace and order. Economy is easily the strongest single value pressing the government at the moment. Economic restraint may involve a threat to some of the softer social values such as equal justice and humanitarianism.

It is important to note that all of the above values are essential to society and operate simultaneously. Problems arising from their application arise not in their legitimacy, but in reconciling them in any given situation, since they are frequently in fundamental conflict. At the operational level these conflicts become reflected not only in the differing general objectives of individual sectors, but also in the specific objectives of the various ministry divisions.

In identifying these values or operational principles, it is recognised that Project Four has not identified indicators which reflect the operation of all or, for that matter, even most of these principles. It is crucial, however, to recognize that it is precisely the operation of these priciples which make the task of goal definition and objective setting controversial and lacking in consensus. Because of the essentially conflicting nature of these principles one will always find quantification difficult.

The social well-being of B.C.'s citizenry is protected and enhanced by the general objectives of each of the four divisions comprising the Administration of Justice.

- Police Services - to promote and maintain public security and order under law by preventing, detecting, apprehending and charging law breakers.
- Courts Services - to provide a forum for the resolution of civil and criminal disputes.
- Criminal Justice Division - to prepare and present the Crown's position relative to these disputes.
- Corrections Branch - to provide a range of activities that include the mediation, counselling, surveillance and/or the confinement of persons referred by the court process or other service agency.

2. Regulatory Boards and Commissions

In the Regulatory Boards and Commissions, the Attorney General is accountable for a broad range of activities. Each activity has its own specific policy sanctioned through its general objective, as given by the Ministry.

- Coroner's Service - to investigate and determine the circumstances surrounding sudden deaths and report findings and recommendations from inquests.
- Criminal Injuries Compensation Fund - to provide compensation to victims of violent and certain other crimes (administered by the Workers Compensation Board).
- Fire Commission - to protect life and property through the provision of fire inspection and by establishing uniform standards for training and fire safety.
- Film Classification - to classify films in advance of public release for the purpose of providing advance warning of the possibility of material offensive to certain viewers.
- B.C. Police Commission - to assume responsibility for the training, standards and coordination of activities for all police involved in provincial or municipal policing; conduct inquiries and research as directed by the Attorney General.

- Law Reform Commission - to systematically review all laws of the province with a view towards development and reform.
- Racing Commission - to govern, direct, control and regulate horse racing in the Province in co-operation with the Federal government for the purpose of maintaining public confidence in the industry.
- Order-in-Council Review Board - to provide for the systematic review of individuals indefinitely committed to mental institutions. To recommend to Cabinet any release provisions or future dispositions of such individuals.
- B. C. Board of Parole - to systematically review the application of inmates eligible for parole in all provincial institutions; to suspend or revoke paroles where conditions are not being met.

3. Legal Services to Government

The major component of the Legal Services to Government function is the Legal Services Division. Also included under this functional area is Statute Revision and the Legal Services Society. General policy objectives for all of these activities are as follows:

- to provide overall direction and coordination of legal services to the Province of British Columbia and its various ministries, boards, committees and societies as well as advice and counsel on legal matters and interpretation of statute law;
- to advise and represent the Province of British Columbia regarding constitutional and administrative law and intergovernmental matters;
- to represent the Province of British Columbia in civil litigation matters;
- to draft, prepare, file and publish statutes, regulations and Orders in Council;
- to provide on-going revision, maintenance and updating of provincial statutes;
- to develop policies and programs in family law;
- to organize, implement and provide legal services in family law
- to assist in the coordination and provision of legal service to social services and to direct other branches of the government in the implementation of these programs, policies and services;
- to provide legal advice to the Public Trustee regarding the protection of estates and financial

interests of minors, mentally disordered persons and those under long-term health care, and the administration of estates of certain deceased persons.

- the Legal Services Society is responsible for administering a legal aid plan and providing legal aid assistance to individuals who would otherwise not receive it due to financial reasons. It also provides public legal education.

4. Administration and Support

- to provide financial and personnel services to the ministry.
- to maintain records of all transactions in real property; issue and ensure the security of title in accordance with the Land Registry Act.
- to provide policy analysis, research and evaluation, long term planning and grant funding of private agency programs.
- to provide the administrative coordination required to ensure the provision of all public safety and justice training programs.

CHART 1

Functional and Organizational Reconciliation

Function	Organization
Administration of Justice	Police Services Division Court Services Division Criminal Justice Division Corrections Branch
Regulatory Boards and Commissions	B.C. Board of Parole B.C. Coroners Service B.C. Police Commission B.C. Racing Commission Criminal Injuries Compensation Law Reform Commission Fire Commissioner's Office O.I.C. Patients Review Board
Legal Services to Government	Legal Services Division Statute Revision Legal Services Society
Administration and Support	Support and Regulatory Services (Finance, Personnel, library, land titles, etc.) Policy Planning Division, Justice Institute.

PART TWO: PROCEEDING WITH THE PROJECT

Part II of this report outlines the specific terms of reference for this project and describes a general framework for the overall project and its specific plan of action. This second part of the report also contains some discussion on the problems relating to a review of developments in other provinces that are, or have recently, given consideration to performance measurement from a system-wide perspective. As well, a description of the "key indicator formats" is presented and the variables used are discussed in detail.

CHAPTER III. TERMS OF REFERENCE

A. Framework

In general terms, the project had to consider the activities of the various sectors of justice as outlined in Chapter II. However, under the terms of reference of Project Four, these activities related to the "responsibilities" of the "criminal justice" system. These responsibilities and activities were identified and considered in terms of:

- statutory requirements;
- traditional operating procedures and levels of operation;

- expectations of decision makers and the public;
- political factors.

A recognition of these varied influences has implications for the type of measurement model adopted for the project and the subsequent utility of the measures generated. A methodology which ignores, for example, statutory requirements and traditional operating procedures and focuses solely on public expectations or political factors would have limited utility for internal resource allocation decisions. At the same time, however, when these latter requirements are ignored, they are only done so with considerable risk to the serious implementation of any of the measures.

The activities and objectives of individual system components must be perceived and understood in terms of <u>all four</u> influences. The performance measurement model adopted viewed the various programs or activities of the system as responding, in varying degrees, to those four influences. For each activity, the relative importance of each influence, as well as the degree to which any influences are complementary, can vary. Any assessment of performance must take into account the weight or importance that is assigned to the particular influence and permit

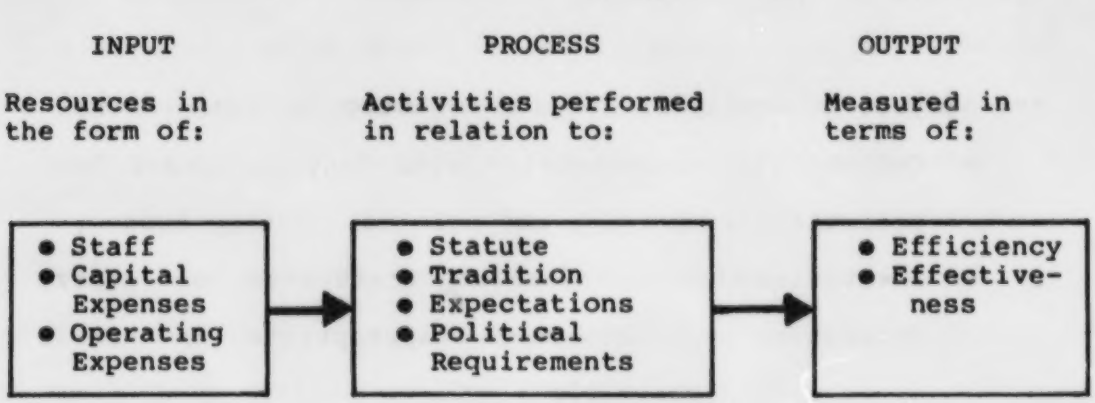
decision makers to make resource allocation judgements on the basis of that knowledge.

The project generally followed a six stage process which:

- defined in functional terms the programs and activities comprising the criminal justice system;
- identified and classified statements of goals, objectives or standards appropriate to those programs and activities;
- considered measures appropriate to the statements identified for each program and activity consistent with available data.
- analyzed and compared those measures to establish a preliminary measurement set;
- tested selected measures using existing Ministry data bases; and
- presented a set of activity and performance measures to the Ministry divisions and its Executive for comment and consideration for implementation.

Performance measures selected for testing were grouped in terms of measures of effectiveness and measures of efficiency. In simple schematic terms, the measurement model employed is illustrated as the input-process-output model, shown in Figure I.

Figure I
Performance Measurement Model



Efficiency Measures: relate to and are measured in terms of the level of Output per unit of measured Input.

Effectiveness Measures: relate to the level of Output relative to objectives, standards, or trends identified as base units in relation to program requirements.

In selecting measures for testing, the following criteria were used to assess their suitability:

- RELEVANCY. This criterion determines how relevant any of the developed measures are to the function performed. Do they measure what is intended to be measured and are they directly linked to the function performed?;

- APPLICABILITY. This criterion determines how practical any of the measures are and how useable they may be for immediate implementation;
- CLARITY. This criterion ensures that any measures adopted are well understood by the persons exposed to the measure. A conscious effort is necessary to avoid the use of jargon.

B. Project Plan

In establishing parameters for developing a workable plan for the project, two major factors were taken into account:

1. If the project was to be relevant to the divisions and their managers it had to be complementary to the initiatives ongoing within those divisions and the Ministry budgeting process.
2. The project was to conform to the agreement with the Federal Government that outlined in general terms a direction for the project. A specific Federal concern was the transfer potential of any end products of the project.

The project was designed primarily to satisfy provincial concerns, but the detailed work plan allowed for sufficient

interaction with the federal sponsors to ensure that their concerns were also addressed.

The formal project was of 12 months duration from September 1, 1980 to August 31, 1981. Eight major activities were carried out during that time. The timeframe and relationship of these activities is presented in chart #2 on page 39. Chart #3 compares planned versus actual completion of the eight activities.

- Activity 0 was the initialization phase and was expected to be of one month's duration. During this time the scope of the project was defined and agreement reached on both the Provincial and the Federal requirements. As well, the project was presented to, and approved by, the Ministry Executive Committee. An outline was then distributed to all divisions.
- Activity 1 comprised the phase during which program inventories and descriptions were gathered. An initial attempt was also made to group these along functional lines.

  During this phase, library research was pursued and existing performance indicators were analyzed and catalogued. As well, existing goals and objectives for the Ministry were collected and, to the extent possible, quantified.

This phase included preliminary discussions with divisional representatives regarding the above material.

- Activity 2 comprised the second major phase of this project and was allocated an elapsed time of four months. It was during this phase that the program inventories and existing and alternative goals and objectives were examined and a preliminary set of measures established. The measures were developed after a consideration of the theoretical literature, their practicality for implementation, the availability of data to support them and their acceptability to the operating divisions. During this phase there was also to be some testing of the application of these preliminary measures.

  All the material brought together during this phase was submitted to the various divisions for their detailed review. This phase also considered the extent to which the project results would be suitable for application in other jurisdictions.

- Activity 3 was to establish an advisory committee. A decision point was formally allocated for this task almost midway through the project and this activity was approached in the following manner:

  - Primary working groups were established within the various divisions utilizing linkages existing

for the Ministry/Treasury Board Evaluation thrust. The sectoral contact persons for the evaluation exercise were used extensively for contact and discussion during the initial stages of the project;

- The formation of a formal advisory group was explored with these primary contact persons and their reactions obtained regarding both the necessity and the desireability of formalizing an advisory group. At the decision point of January 1981, it was agreed that the Ministry Executive Committee was the best choice for a formal advisory group.

- Activity 4 consisted of negotiation and review sessions with National Work Group personnel. There were three of these sessions planned: one near the end of October, 1980; with its chief aim being to clarify the ground rules, discuss provincial/ federal expectations and to approve a final project plan. The other sessions, planned for late January and late April, served as informal discussions of project progress and provided a forum to resolve any changes in direction or anticipated project delays. In particular the concept of individual sector reports and the implementation feasibility was reviewed. During these sessions minor contract amendments were also agreed to.

- Activity 5 comprised the formal status reporting. The obligations for progress and status reports for the project were met in the following manner:
  - By an informal updating of the project liaison officer (D. Conly, N.W.G.) by telephone or letter as significant events occurred (approximately monthly);
  - By providing updates for the National Work Group bulletins. There was no regular publication cycle for these bulletins but dates were set on demand by the National Work Group;
  - By providing a formal progress report for the F.P.S.C. meeting scheduled for November 28, 1980;
  - By having the B.C. provincial representative to future F.P.S.C. meetings briefed on the latest developments of the project prior to the meeting. During the latter stages of the project these briefings were made to the I.W.G. (Implementation Work Group).

It was agreed that the formal status reports called for in the contract would coincide with requests for payments and, in fact, were included along with payment requests.

- Activity 6 was a requirement to document the strategy and problems encountered during the project. The month of

April, 1981, was allocated for this task. This documentation has been integrated into this final report.

- Activity 7 was devoted to the implementation feasibility. Six weeks was allocated to this activity beginning in mid-May to the end of June. The implementation feasibility was considered from three perspectives:
  - The needs of the ministry in light of wider developments ongoing within the Ministry of Finance;
  - The need to contribute to better national statistics; and
  - For possible transfer to other jurisdictions.
- Activity 8 comprised the final report and the project wrap-up. Two months were allocated for this activity, i.e. July and August, 1981.

While the plan for the project was followed closely there were some slippages primarily as a result of the need to build upon a solid foundation of Ministry executive support and the need to demonstrate links and quantifiable support to the budget process.

Key Decision Dates Affecting Project Four

1978	April	- National Work Group on Justice Statistics formed. Initial workplan proposed by N.W.G. - Project Four defined as "The Feasibility of Defining Performance Indicators" Appears in Group A tasks with a priority rating of 2.
1979	January	- FPAC meeting, B.C. expresses initial interest in Project Four.
	April	- FPSC meeting, B.C. confirms interest.
	September	- Anticipated resources in B.C. not available. Negotiations for contract begin with N.W.G.
	November	- Scope of Project Four refined; expected deliverables suggested for contract.
1980	February	- Contract presented to B.C. for signature.
	March	- Contract signed by B.C.
	July	- Liason officer assigned by N.W.G.
	September	- Project Director selected by B.C.
	November	- Formal project report for N.W.G. Bulletin.
1981	June	- Contract amendments re: time frame and amount finalized.
	March	- N.W.G. disbanded.
	April	- Canadian Centre for Justice Statistics is established.
	July	- Approval in principle to proceed with implementation in B.C. of the results of Project Four.
	November	- Formal allocation of implementation resources by Divisions.

CHART 2

Planned Completion Dates

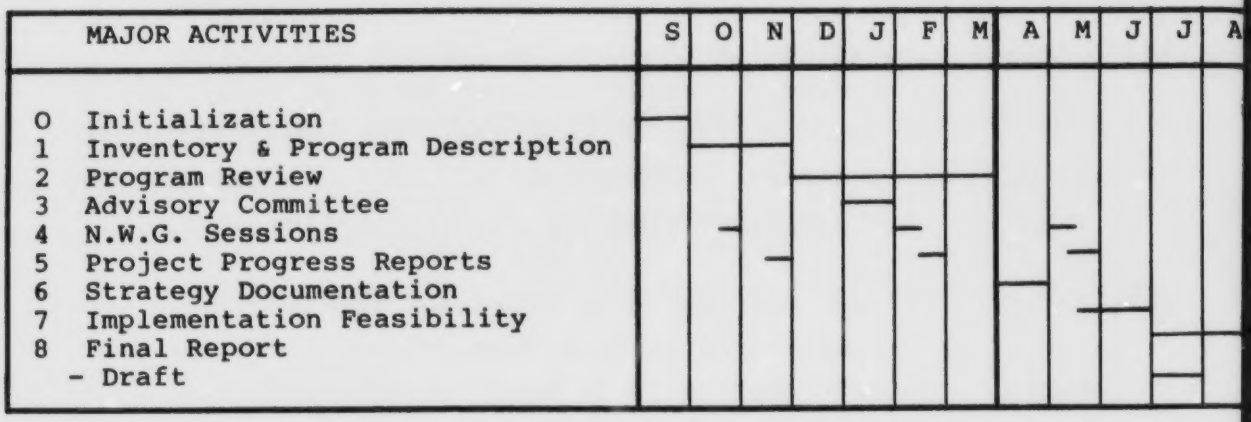
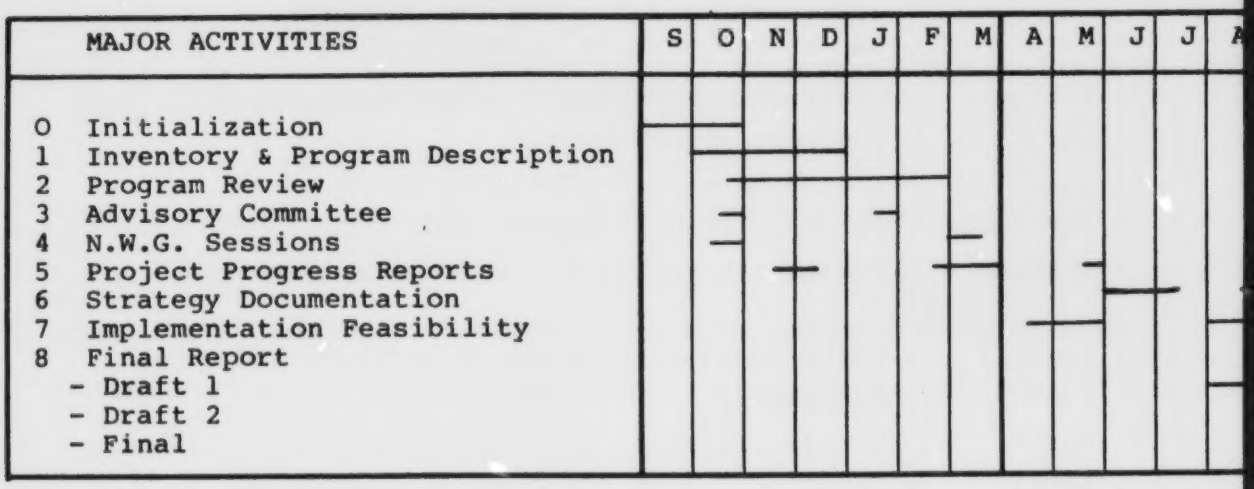


CHART 3

Actual Completion Dates



CHAPTER IV. IN SEARCH OF PERFORMANCE INDICATORS

Two of the classic reasons given for measuring performance are to enable us to better manage the Criminal Justice area and to better allocate existing resources. Acknowledging that these are not the only purposes for measurement, they are important ones and become a major focus for the project. Performance measures discussed in the context of resource allocation will ultimately yield input useful to the following:

- decisions about how much of society's resources should be allocated to Criminal Justice;
- decisions about what proportion of the total expenditures flow to the various production units;
- decisions within the various production units about the allocation of funds among specific production activities.

A. Performance Measurement

The Criminal Justice System cannot generally use private sector market place indicators such as profit or return on investment but often must deal with issues requiring judgement and be content with qualitative data. Because of this inherent judgemental characteristic of Justice, performance indicators for these programs are not agreed upon, nor are they easily identifiable. Notwithstanding the controversial nature of

public service indicator development, indicators must be concerned with relating results achieved to the resources utilized in achieving those results and with the results achieved to results planned over specified periods of time.

Program results are called outputs. When measured in a results-to-resources relationship, as shown in the model described in Chapter Three, they are expressed as output per unit of labour input; for example, the number of arrests, or inmates, etc. processed per man year. An overall process for measuring public service performance in terms of efficiency and effectiveness requires the specification of a model and a subsequent adherence to the following steps:

- Determine what outputs are produced;
- Determine the number of each kind of output produced during a given period;
- Associate with, or allocate to, each output the cost of producing it during the period;
- Calculate an efficiency ratio for each output, i.e. the number of output items produced divided by the cost of production. (A unit cost can also be calculated by using the inverse of the above ratio).
- Calculate efficiency ratios for several periods and determine how they have varied; these can then be expressed as index numbers or rates of change relative

to a base period and shown in a time series relationship.

- Identify the appropriate service-level indicator for each output and determine how these have varied over time and specify the relationship between service-level and efficiency.
- Determine how the outputs contribute to the achievement of the organization's objectives and identify effectiveness indicators.
- Develop a simple means of reliably reporting performance information (together with the relevant financial data) to responsible managers in a regular timely manner.

Although the above comments are indeed brief and may appear simplistic, they are basic building blocks and are representative of the current theoretical thinking around the application of performance measurement to public service entities.

A very common method of approaching performance measures is to attempt to relate these measures in terms of specific goals and objectives. This question of goals and objectives, however, is much more complicated than appears at face value. Douglas Hartle in Public Policy Decision Making and Regulations (1979),

lists five reasons why this apparently simple problem is so complex.

1. There can be more than one goal statement with respect to programs or organizations. If inconsistencies exist between these statements, one must determine which statement is the correct one;
2. Often times, statements of objectives are public relations exercises really designed to persuade the largest number of voters that what is being done is in their best interest. These statements are often couched in rhetorical language leaving them open to differing interpretations;
3. Some statements of objectives and goals serve a jurisdictional purpose in which one department or agency stakes out a claim of authority in relation to other agencies or departments. Objectives set under these instances are often not defined operationally and are, therefore, inadequate for evaluation;
4. Some objectives tend to be intermediate steps in causal chains between means and ultimate ends. In this situation it might be necessary to develop proxy or intermediate measures. (This dilemma

was dealt with usefully by the Federal Government in the initial conception of their operational performance measurement system (OPMS). A discussion of this problem is contained in volume one of that study);

5. Many existing objective and goal statements assume that programs or agencies have single purposes. They often tend to ignore the fact that a program can simultaneously affect a number of collective concerns.

Hartle's opinion is that one of the most intractable problems in policy or program analysis is attempting to reach consensus on operational definitions of goals so that they are quantifiable. While it may be impossible to measure all legitimate goals in an operational sense, there do exist some goals that can be defined operationally and measured, at least to some degree. Hartle is of the opinion that an inability to measure all goals does not mean that much cannot be gained from measuring only a few. Hartle also notes that attitudinal surveys can play a major role in defining a suitable set of operational goals.

The use of victimization and attitude surveys including the Gallup Poll Technique are analogous to the use of market surveys

in the assessment of, and demand for, economic market products. The potential for shaping the course of criminal justice intervention by the use of such feedback instruments is not diminished simply because they may not meet all of the rigours traditionally defined by social science methodologists. There appears to be considerable room in criminal justice administration for the application of the concepts and tools of marketing and business analysis.

Criminal justice activity and performance measurement would benefit from a thorough consideration of public (marketplace) expectations. At a conceptual level, it can be argued that in a democratic society the public, which pays for government services, should be granted input into determining the efficiency with which programs are operated and the degree to which they meet their objectives. At a more practical level an examination of public expectations could serve to confirm or refute current assumptions about the nature of public perceptions of the system and may, in fact, highlight significant variations in expectations and concerns existing in various areas of the community.

Such an enquiry could begin with a limited Gallup type survey focusing on system and component objective statements. Ultimately, thorough attitude surveys may be pursued for specific

sections of the population. Even though a limited survey was beyond the project scope initially it is recognized that the absence of reliable information on public perceptions of the system could represent a major limitation on the project and suggests one area for enhancement.

In a similar vein, the notion of criminal justice as a system has been questioned, both in the academic literature (Ida Hoos), and by criminal justice practitioners themselves (the National Advisory Commission on Criminal Justice). Viewed from a system's context, defining the boundaries of the system components becomes a critical part of the exercise and must be clarified early on in any project. Even with these differences regarding a "systems" approach, it is not necessary to assume that the differing agencies or divisions within a department or ministry represent a harmoniously operating system. Whether or not one accepts the position that the processes that make up criminal justice comprise a system it is, nonetheless, often a reality that the various divisions operating within Justice have objectives and activities that contradict each other. At the lowest level of informality this reality is expressed by such phrases as "the police lock them up, but Corrections lets them out".

Notwithstanding these uncertainties, and a lack of consensus on the issues identified, Project Four proceeded under the following assumptions:

- there already exists enough relevant information to assess performance at least in respect to some general goals;
- this exercise could help identify major gaps in existing statistical systems, particularly in regard to the information requirements identified in the reports of the National Projection on Resource Coordination and the National Task Force on the Administration of Justice;
- determining data requirements in the form of data elements will reinforce a degree of rigour in goal definition and would aid the Ministry in coordinating its data processing initiatives; and
- a delineation of those areas where goals cannot be measured would help to distinguish between those activities where quantitative methods have little potential payoff and those activities where these methods have high potential payoff.

In approaching this project it is recognized that the issue of performance measurement in the area of criminal justice has received a good deal of activity and, at times, heated academic

debate over the last 5 to 10 years. Much of this activity has centred on goal and objective setting and the debate has tended to focus on the utility of the various types of measures and whether or not criminal justice should be characterized in a "systems" or in sector specific terms. In establishing terms of reference for the project, it was necessary to specify assumptions basic to the approach adopted and to identify some of the constraints within which the project must operate. In addition, it was important to identify related projects that were currently underway or about to begin.

Efficiency is consistently defined as the ratio of inputs to outputs (e.g. the number of problems solved per man year or the number of units of service performed per man year). The efficiency criterion is most often used in relation to financial cost including man year, operational and/or capital expenditure. In this relationship efficiency then becomes cost per unit delivered or unit cost per output. A more general, but somewhat confusing term, sometimes used for the specific term efficiency is economy.

It is in distinguishing the area of effectiveness where this concept gives rise to the greatest controversy and is the most difficult to define. But there is general agreement that effectiveness measures focus on the extent to which program objectives have been achieved and can be measured in two ways:

- By actual comparison of stated objectives to program outputs; and
- By the degree of citizen satisfaction with the quality of service provided.

The serious development of effectiveness measures requires a clear set of organizational objectives, the existence of a data base capable of monitoring those objectives and, most importantly, senior management recognition and commitment to objectives and objective setting. As a starting point (primarily from a pragmatic need for quick results) this project primarily focused on efficiency measures (what is being performed and at what cost) and, to a lesser extent, with the equally important issue of effectiveness (is what is being done appropriate and is it being done in the most appropriate way). Efficiency, then, becomes an integral building block in addressing the effectiveness question which is really inherent in the broader research issues involving specific program impacts.

B. Operating Assumptions and Constraints

1. Assumptions

- Performance measures or indicators, as they are often referred to, are seen as essentially

quantitative in nature, measuring an organization's actual performance relative to predetermined goals, objectives, or standards; or, alternately, to past performance and future projections or forecasts. As such they focus on outputs - the products of an organization or its components - rather than on levels of procedural activity. They do not substitute for qualitative measures, but they should serve to enhance and support qualitative statements.

- Although the nature of the criminal justice process and whether or not that process and the various agencies involved in criminal justice should be viewed as a system is open to debate. For the purposes of this project, the approach adopted will acknowledge an open-systems perspective of criminal justice. It is recognized, however, that this perspective must reflect the actual operations of criminal justice agencies in this Province, rather than some theoretical construct.
- Public expectations play a significant role, both in the product and perceived success of the criminal justice system. Any project in the area of performance measurement would benefit from a careful examination of those expectations. Such an examination is, however, beyond the resource and

time constraints of this particular project. Notwithstanding these limitations, public expectations, as reflected in the literature were, to the extent possible, taken into account.

- Because a major reason for the measurement of activity and performance is to assist in the making of resource allocation decisions, the project must support the Ministry's budget planning process. For this reason, a particular effort was made to identify programs and activities in terms which reflect the Ministry's budget structure.

2. Constraints

- Time period for project duration was fixed at 12 months.
- Formal resources allocated were one man year for the project manager and the attendant office support. Other informal resources were internal to the Policy Planning Division of the Ministry and liaison and consultation with personnel in the operating divisions.The project must relate to and
- support existing divisional measurement activity.
- The project must support the broader Ministry/Treasury Board Evaluation initiative.

C. Related Projects

From the provincial perspective, this project relates closely to several other concurrent projects and initiatives. Concern was raised regarding the possible duplication of effort and effective communication among these other initiatives became a key requisite during Project Four.

- The Ministry-wide evaluation thrust results from a Treasury Board directive geared to refining the Z.B.B. process. In response to this Treasury Board initiative, several evaluative efforts are currently going on within the various divisions. The mechanism used to link this project to these divisional activities became the linkages existing for the larger evaluation thrust;
- The Corrections Branch currently has a formal evaluation committee, is finalizing a standards project, and had a summer project reviewing its stated goals and objectives. All of these Branch activities were related to the performance measures project and had to be considered by project staff;
- A private consulting firm had developed a preliminary staff planning teachnique for the Corrections Branch and completed a manpower planning

exercise with Court Administration. Developments in these areas were also related to Project Four;

- The Ministry's population estimation project, undertaken in conjunction with the Central Statistics Bureau, will be essential in enhancing the model of analysis for performance indicators. This project will provide census data by the Ministry's administrative regions and will allow demographic variables to be analyzed according to those regions.
- Research projects underway within the various divisions were examined to ensure any data relevant to performance measurement was made available to Project Four.

CHAPTER V: DEVELOPMENTS IN OTHER PROVINCES

As an initial step in the project, the manager undertook to review related work underway or previously initiated in other Canadian jurisdictions. Although all provinces were contacted, and most indicated that some work was proceeding in this area, system-wide documentation was available from only three provinces; Alberta, Quebec and New Brunswick. This chapter briefly described the models and indicators used or proposed in those jurisdictions, as well as earlier work from British Columbia.

Although the approaches and terminology used by the jurisdictions varied, a review of the documentation and subsequent discussions with officials from each province indicated important similarities in at least two areas. The first is an emphasis on performance indicators relating to efficiency as opposed to effectiveness. It is suggested that this emphasis reflects, in part, the concern of the ministries and central agencies with increasing program efficiency and reducing increases in program costs. In addition, the absence of generally accepted quantitative objectives and performance standards makes the development of effectiveness measures more difficult. In the case of efficiency measures, this absence of agreement is less problematic. It is generally accepted that

"efficiency" can be measured in terms of the relationship of inputs to outputs; that is the cost per unit of service delivered. As such, the calculation of efficiency measures is a little more straightforward. In fact, there is considerable opinion suggesting that it is necessary to know what we are doing and at what cost (efficiency issues) before we can attempt to determine if what we are doing is appropriate (effectiveness issues).

Second, there are many similarities in the actual indicators identified, be they activity, effectiveness or efficiency measures. This is, perhaps, not surprising in that common sense and historical usage dictate that there will be a certain amount of consistency. This does suggest, however, that over time it may be possible to develop a common set of activity and performance measures among jurisdictions.

A. The Alberta Approach

The Alberta Solicitor General's Department considered the issue of performance measurement in a report to the National Work Group in late 1978. That report contains a general discussion of approaches to measuring performance in various criminal justice sectors and specifically deals with the adequacy of some of the measures commonly used in the police sector. This report also listed some of the data elements available through the Corrections Management Information System (COMIS).

The Alberta report groups indicators into the following general categories:

- Financial Indicators: These indicators measure the costs involved to achieve specific tasks in the face of operational or political constraints.
- Performance Indicators: These indicators measure the efficiency of the various quantitative and qualitative activities performed in the various organizational units expressed as dollars or man years consumed.
- Activity Indicators: These indicators measure the levels of activity performed either in terms of absolute quantity or quantity per period of time.

Although not explicitly stated, the primary issue addressed is one of resource allocation and the efficiency and effectiveness levels at which various criminal justice units operate. The three indicator groups described above all relate generally to the efficiency aspects of performance. The issue of effectiveness is addressed primarily in the supporting documentation contained in the Report Appendices. Recent contact with representatives in the Province of Alberta suggests that in the immediate future efforts devoted to performance measurement will concentrate on specific target groups such as Highway Patrol, rather than on system wide interaction.

The Province of Alberta has made a significant contribution to the state of knowledge regarding performance measures with its publication entitled "Criminal Justice Statistical Development Bibliography". This publication contains references to many recent literature sources and it is these recent references that are of primary value.

Indicators Presented in the Alberta Report

The Alberta report did not give a sector by sector listing of indicators, but emphasized the police sector. The following were highlighted as potential indicators for each category:

Financial

- The police clearance rate (the ratio of crimes cleared to crimes reported);
- Workload reporting;
- Average cost of detention per prisoner;
- Average detention cost per day;
- Cost per day per prisoner;
- Cost per mile travelled by police;
- Cost per capita of policing;
- Costs in court versus expenditures spent on preventative programs;
- Institutional costs per inmate.

Performance Indicators

- Average number of prisoners held per day per policeman or per capita or per offence;
- Missing persons located as a percent of those reported missing over a time period from request;
- Average time to locate missing person;
- Arrests per population per policeman per offence;
- Police training in hours per policeman versus crime rate decrease;
- Property damage per population;
- Police reports per offender;
- Police arrests per offender.

Activity Indicators

- Elapsed time between call and action on the scene;
- Percent of usage of police cars per 24 hour day;
- Telephone calls handled per patrol sent (radio & telephone);
- Number of telephone initiated complaints versus patrol and investigation initiated work;
- Total number of reports filed per total known cases;
- Crime report and accident report versus day of month over twelve month period to constitute maximum activity for certain types of occurences;

- Police administration time versus total time spent at work;
- Number of charges and convictions.

The following list of data elements and variables was reported as being available through the COMIS system. These variables can be developed into performance indicators by relating them to cost data and manpower data over specific periods of time.

Socio-Demographic Variables:

- age/sex;
- education/occupation;
- marital status;
- ethnic status (native/non-native);
- place of residence.

Offence-Related Variables:

- most serious offence/charge;
- number of other convictions/charges;
- recidivism;
- aggregate sentence;
- inmate status - sentenced, remanded, penitentiary;
- mandatory sentence/fine default;
- type of release from correctional institution jurisdiction;

- involvement in institutional diversionary programs - camps;
- involvement in community diversionary programs - T.A., Community Residential Centre (portion of sentence served outside institution);
- parole violations;
- time held as remanded inmate - until sentenced or released by court;
- return to institution from early release (prior to sentence expiry date);
- security classification;

Institution-Related Variables:

- institution type;
- utilization of bed-space (turn-over of inmates within institution);
- number of inmates held per unit of time;
- escapes and disturbances;
- transfers between Alberta correctional institutions;
- staff required to maintain correctional institution services;
- cost per day inmate per institution, at camp, at C.R.C. etc.;
- cost of holding federal inmates (per inmate);

- average cost of transporting remanded inmates to court and return;
- average cost of transferring inmates among other correctional institutions.

Included in appendix D of the Alberta report is a useful discussion on the adequacy of measures currently used in determining police productivity. Alternate suggested measures, in addition to crime rate and clearance rate, are elaborated. The following summarizes some of the alternatives:

Workload Measures

- total calls for service (CFS) by watch and day of week;
- percent utilization of time that a patrol unit is engaged in calls for service work;
- number of calls for service generated by geographical patrol area;
- caseload per detective;
- amount of time consumed per investigative unit.

Manpower

The ratio of police members assigned to active patrol or street duties compared with total strength and the time available for patrol or other specified duties compared with total paid hours.

Response Time

Response time is purported to be related to apprehension; of equal importance however, is the belief that rapid response reassures crime victims and visibly demonstrates the responsiveness of government to citizens' needs.

Response time is defined as the time interval between the receipt of a request for police assistance and the arrival of the first unit on the scene; travel time is a portion of the overall elapsed time.

While rapid response may not be necessary for all complaints, there are certain complaints (usually subjectively predetermined) which must be treated as emergencies. In spite of obvious fiscal limits to human and capital resource availability, some standards must be established as a target objectives in order to measure performance. For example, response time standards might be set out as follows:

- 90% of all priority 1 calls for service (CFS) ought to be responded to within 4 minutes;
- 90% of all priority 2 CFS ought to be responded to within 15 minutes; and
- 90% of all priority 3 CFS ought to be responded to within 65 minutes.

Alternatively, standards can be set by analyzing all CFS and specifying the percentage of calls to be responded to within a specified length of time, say 4 or 5 minutes. Police managers may wish to increase the percentage of calls responded to within specified time limits through a reallocation or an addition of resources.

Crime Deterrence and Prevention

The report states that, in theory, deterrence is useful only when threats of punishment succeed in achieving their objective by reducing the number of times a certain behaviour takes place. Measurement of efforts to deter crime cannot be measured directly and it is necessary to construct indirect measures (proximate or surrogate measures). Survey data and victimization studies are increasingly being used to develop insights into the impact of selected crimes upon victims. Survey techniques provide added potential of the development of new measures for crime control and crime prevention programs. They may reveal not only a truer incidence of crime, but also the reasons why crimes were not reported and the victim's attitudes towards the police and the police service.

Charging Rate

The number of crimes for which one or more suspects are formally charged divided by the number of reported crimes.

Quality of Arrest

Arrest figures alone provide little insight into the important policy and resource allocation issues involved in police productivity. Attaching a positive value to the number of arrests made is traditional in older agencies, but recent trends in policing call for diversion or avoiding arrests in many situations. For example, it may be more valuable to know the number of problems solved and the economic use of resources rather than simply the number of arrests. More appropriate measures are therefore required which provide the police manager with a clear picture of the relationship between resources allocated and the final results in terms of convictions. These are:

- percentage of serious arrests that pass preliminary hearing or final disposition and the percentage that do not;
- the percentage of arrests leading to convictions for some charges, or highest charge before plea bargaining, both measured against total patrol or criminal investigation man hours and dollar costs.

These measures may not be exact in themselves, in that other agencies and factors influence the final case outcome including; prosecutor screening, the competency of

prosecutors, defence counsel and judges, court delay and backlog, but they are useful when considered along with more traditional measures.

Speed of Apprehension

The difference between date of arrest and date of original crime or the number of days between report or incident and clearance for each type of indictable offence.

Citizens Perception of the Quality of Police Service

In measuring citizens' perceptions of the quality of police service, a well designed sample survey can yield useful results. This type of survey differs from victimization studies in that the questionnaire is not concerned with issues such as unreported crime, or feelings of security, but solely with citizens' perceptions of how well a 'call for service' is responded to. It would include:

- the length of time to report complaint to the police;
- the complainant's definition of the complaint as well as attitudes about the complaint investigation process;
- the complainant's impressions of response time delay, and a comparison with actual data;

- citizen evaluation of the quality of the initial on-scene investigation;
- the complainant's general socio-economic profile; and
- a comparison of citizens' feelings of complaint seriousness and the priority assigned by complaint evaluators.

Productivity Index

This index is constructed by evaluating citizens' feeling of security in a specific geographical area plotted against the number of police members assigned to that area. The approach is to evaluate the perceived level of security through opinion surveys.

Equity of Service

By this measure, the way in which police services and benefits are distributed among the population is determined. Service equity can be approached from four perspectives:

- that each person should have an equal right to benefits;
- that benefits should be uniformly available;
- that benefits should be available in proportion to needs;

- that benefits should be available in proportion to economic or political considerations.

B. The New Brunswick Approach

The perspective taken by justice staff in New Brunswick considering criminal justice performance is similar to that taken by the Province of Alberta. Both consider issues involved in relating workload (activity) outputs to the quantity of resources consumed. The New Brunswick perspective adds a useful dimension in that the indicators suggested by that province are considered in terms of supply (capacity to provide service) and demand for those services. Demand indicators are analogous to the economic demand curve function, that is, the level of a particular service demanded per period of time at the price the consumers are willing to pay. The other dimension of this model is the supply curve function which, in New Brunswick's terminology, are the service indicators (the level of service provided).

The major inputs to this model are costs, R.C.M.P. contract and man years. The outputs of this model, called "performance indicators", include such things as the rate of increase or decrease of all crime in New Brunswick and incident clearance rates.

Discussions with Justice staff in New Brunswick indicate that their report was an initial step designed to stimulate the further development of potential operational measures. The report produced during this step presents a shopping list of what some of these measures might be and how they may be further developed. This approach has had some success as further detailed work related to data requirements and data collection has occurred since that report was issued. The implementation of the "PROMIS" system in New Brunswick will contribute to making some of this data available.

Indicators Presented in the New Brunswick Report

Indicators in the report produced by the New Brunswick Department of Justice categorized criminal justice into the following five sectors: law enforcement, courts, prosecution, corrections and sheriff's office. New Brunswick has considered performance measurement in the context of a supply/demand model for each of the five sectors. In such a macro-model, outputs from one sector provide the inputs for the next sector. Each sector is dealt with here in the order presented in the New Brunswick report.

Law Enforcement (Police) Sector

The law enforcement sector is described as having two objectives: one of crime deterrence/prevention; and one of enforcement.

Demand indicators for deterrance/prevention are:

- The total of all reported incidents (reported crime rate);
  - by specific offence type
  - by provincial statute
  - by municipal statute
  - by property offences
  - by personal offences
- All displayed by Judicial centre (region);

Service (supply) indicators for deterrance/prevention:

- number of miles patrolled;
- number of investigations;
- number of policemen involved in prevention projects;
- number of policemen involved in other community projects.

Resource inputs to the model are specified as: R.C.M.P. contract costs, provincial subsidies, man years (by police and civilian personnel), ratios of costs by judicial centre, officer, total crime and crime type.

Outputs from the model are called performance indicators. For the deterrance/prevention objective, these include: the rate of increase or decrease of all reported crime categorized by; offence type, provincial and municipal

statutes, crimes against persons and property, all displayed by Justice centre.

Demand indicators for the enforcement objective are the same as those for the deterrance/prevention objective. Service (supply) indicators for this objective are:

- number of arrests;
- number of charges laid;
- number of breathalyzer cases;
- number of tickets issued;
- number of summonses delivered;
- time involved in court attendance;
- time involved in escort service.

The resource inputs are costs, the same as those expressed for the deterrance/prevention objective. They are, however, now calculated in terms of the number of arrests, charges, breathalyzer cases, tickets, summonses, court attendance and escort duties.

The performance indicators (outputs) for this objective are expressed as clearance rates, categorized by criminal code offences, provincial statutes and displayed by judicial region.

Court Sector

The court sector objective is defined as "the provision of a forum for the determination of charges". The court sector is expected to provide all facilities and judicial support necessary for case disposition, that is, a physical location and staff for the hearing of charges.

Demand indicators for the court sector are:

- number of charges laid;
  - by criminal code
  - by provincial statute
  - by municipal statute
- all displayed by judicial centre;

Service indicators for the court sector are:

- number of trials;
- number of preliminary hearings;
  - by Provincial Court
  - by Supreme Court
  - by County Court.

The resource inputs are the costs and man years involved in providing this forum, both in total and by court type. Ratios for the individual court types are then calculated.

Performance indicators for the court sector include: the average time from charge to final disposition of the case

and the percentage of successful appeals from the total number of trials, categorized by court type and region.

Prosecution Sector

The prosecution sector objective is described as "providing case prosecution service on behalf of the province".

Demand indicators for the prosecution sector are:

- number of charges to be processed (volume);
  - by specific time period

Service indicators for the prosecution sector are:

- number of trials;
- number of preliminary hearings;
- other administrative duties.

The resource inputs for this sector are expressed as man years and costs, both in terms of total costs and the ratio of costs per case, per judicial centre, and per type of court.

The performance indicators are defined as the rate of successful prosecutions (conviction rate) for all cases in New Brunswick, with further subdivision into judicial region and type of court.

Corrections Sector

The Corrections sector objective is described as: "providing security to the community through incarceration and rehabilitation services where appropriate".

Demand indicators for the corrections sector are:

- number of cases sentenced to jail;
  - by sentence
  - by remand
- number of cases sentenced to probation;

Service indicators for the corrections sector are:

- number of institutions;
- number of cells;
- number of admissions and releases;
- average daily institutional population;
- number of shifts worked by correctional officers;
- number of intake interviews by probation officers;
- number of pre-sentence reports;
- number of other reports;
- number of counselling sessions;
- number community reports;
- average caseload per officer.

The resource inputs to the Corrections sector are total Corrections costs and number of man years. These are further grouped by administration, institution and probation costs. Cost and staff ratios are calculated by

inmate, probationer and parolee, as well as by institution, probation office and parole centre.

Performance indicators are: recidivism rate, the number of escapes per inmate population, number of related incidents per inmate population, and number of escapees returned (captured).

Sheriff's Sector

In New Brunswick the Sheriff's Office is responsible for the following:

- organizing jury selection and ensuring the presence of witnesses in court;
- providing escort services;
- keeping the peace in court; and
- coroners' activities.

The demand indicator for the sheriff's sector is:

- the number of units above referred from court, per 1,000 population;

Service indicators (supply) for the sheriff's sector are:

- number of jury trials processed;
- number of witnesses;
- number of transfers (prisoner);
- number of hours in court;
- number of coroners' cases;
  - all of above by judicial centre;

- number of miles travelled;
- number of total manhours;

The resource inputs for this sector are expressed in terms of: total costs, total man years and costs per office. Ratios are generated and expressed as cost per transfer, cost per escort and cost per office.

The performance indicators for the sheriff's sector are expressed as: the average time for transfer (from initial approval to completion), the number of trials delayed due to lack of completion of the jury selection process and the rate of courtroom incidents.

C. An Early B.C. Approach

Two specific factors have directly influenced how British Columbia has responded to developing performance indicators for the criminal justice system are. They are:

- The Justice Information System (J.I.S.) proposal of late 1978 which involved several divisions of the Ministry in attempting to formulate efficiency and effectiveness measures.
- The formation of a Treasury Board staff function and the implementation of Zero Based Budgeting. This also began in 1978.

Past activity in B.C. is similar in its intent to the previously described approaches of the other Provinces. In the proposals, prior to this project, two major categories of indicators were envisioned; program size indicators and effectiveness measures. The program size indicators are analogous to the demand indicators of the New Brunswick approach. In general, indicators proposed by both provinces deal with the absolute size of the program (absolute number of cases processed). They reflect the demand for service placed upon individual sectors within the criminal justice system.

The J.I.S. initiative implicitly assumed an efficiency component, insofar as the suggested program size indicators were related to periods of time and directly to the amount of money spent per unit of time. This early development was viewed as a natural extension of various computerization efforts underway at that time and an effort to introduce a Program Planning and Budgeting System within the Ministry. This J.I.S. proposal included indicators for all components of the Ministry. The following relate only to the police services, courts and corrections functions with the remaining indicators presented in Appendix A.

Police Sector

The police sector for B.C. consumes Ministry resources in three major areas. These are: the R.C.M.P. provincial contract; the

Police Commission and the Coordinated Law Enforcement Unit, which has primarily an investigative and intelligence gathering role with respect to organized crime.

R.C.M.P.

Program size indicators:

- number of established criminal code offences (founded charges);
- number of outstanding cases (those currently under investigation);
- number of arrests;

Effectiveness measures:

- number of established (founded) offences per 1,000 population;
- number of cases cleared as a percent of outstanding cases.

Police Commission

Program size indicators:

- number of police trained;
- number of complaints against police received for investigation;

Effectiveness measures:

- percent admitted to police academy who failed to complete training;
- number of complaints against police satisfactorily resolved;

- average length of time to resolve complaint;
- average length of time to fully train a police officer.

Coordinated Law Enforcement Unit

Program size indicators:

- number of approved targets;
- number of approved hits;

Effectiveness measures:

- number of proposals (target definitions) brought to C.L.E.U. Policy Board;
- percent of proposals which receive approval;
- percent of targets successfully hit (proceed to prosecution).

Court Sector

The Court sector in this J.I.S. proposal was viewed as comprising four major components: administration, court reporting, sheriffs and crown counsel.

Court Administration

Program size indicators:

- number of indictable cases;
- number of summary cases;
- total number of appearances;

Effectiveness measures:

- number of days - first appearance to trial;
  - by indictable offence
  - by summary conviction
- percent of cases successfully appealed;
  - by indictable offence
  - by summary conviction.

Court Reporting

Program size indicators:

- number of cases reported on;
- number of transcripts requested;

Effectiveness measures:

- number of days spent to prepare a manuscript;
- number of cases adjourned because reporter not available;
- number of amendments (errors) in manuscripts.

Sheriff Services

Program size indicators:

- number of accused in temporary court custody;
- number of summonses received;
- number of units received;
- number of jury trials;
- number of prisoners transported;

Effectiveness measures:

- percent in custody who fail to appear;
- percent of summonses failed to be served within 30 days of issuance;
- percent of writs failed to serve within 30 days of issuance;
- percent of jury chosen who fail to serve;
- number of escapes from sheriff's custody;
- number of persons improperly released.

Crown Counsel

Program size indicators:

- number of cases prosecuted;
- number of witnesses sworn;

Effectiveness measures:

- percent of cases prosecuted to disposition;
- percent of witnesses sworn;
- percent of cases successfully appealed;
- percent of successful prosecutions.

Corrections Sector

The Corrections sector was grouped into two functional components: one component comprising community programs and the other component comprising institutional programs.

Community Programs

Program size indicators:

- number of bail supervision cases;
- number of community service order cases;
- number of probation cases;
- total number of cases;

Effectiveness measures:

- percent of bail supervision cases who show up in court in time;
- percent of P.O.E. recommendations accepted by Crown Counsel;
- percent of diversion clients who do not recommit an offence within 24 months from start of supervision;
- percent decrease in client caseload per 100,000 population;
- percent of clients on impaired driving program who are convicted of impaired driving within 12 months of start of course;
- percent of C.S.O. clients who complete work assignments on time;
- percent of probationers who are not convicted of an offence while under supervision;
- percent of probationers convicted of a lesser offence while under supervision.

Institutional Programs

Program size indicators:

- number of people in institutions;
  - by secure
  - by open
  - by C.C.C.
- number of remand cases;

Effectiveness measures:

- percent of remand cases appearing in court on time;
- percent of T.A. participants who do not commit an offence while on the program;
- number of escapes from camps and special institutions who do not commit a violent offence while at large;
- number of escapes per 1,000 inmate days;
  - by secure
  - by open
  - by C.C.C.

B.C. Parole Board

The B.C. Parole Board has had its mandate expanded considerably since this initial J.I.S. proposal. However, the indicators developed then still have some relevance.

Program size indicator:

- number of offenders on B.C. parole;

Effectiveness measures:

- number of parolees convicted of an offence;
- length of time to grant a parole (application to hearing).

D. The Quebec Approach

The following description of work ongoing in the Province of Quebec is purposely short and intended only as a brief overview. The work being undertaken in Quebec, however, is probably the most extensive and the thorough of all the provinces. In fact, those undertaking any efforts in this subject area would be well advised to review the work of that province. An "unofficial" translation of the methodology and scope of the Quebec initiative appears in it's entirety in Appendix B. The summary report of their work in the Court Sector appears in Appendix C. Detailed work to date in Quebec has focused primarily on their integrated Court system. However, the intent is to include all functions of the Ministry of Justice.

The Ministry of Justice has seven operational A.D.M. levels: Legislative Affairs and Legal Counsel; Public Security (Private Policing); the Surete (Provincial Police); Civil Law, which includes civil rights, privacy, judicial services and land registry; Criminal Justice, which includes prosecutions,

coroners and forensic services; Court Services, civil, criminal and family; and Corrections, responsible for both probation and jails. In addition to these operational levels, there are central services such as personnel and various commissions, as well as the registration of births, deaths and marriages.

The Quebec analysis centers around four major categories:

The level of needs;

The efficiency of resource use;

The quality of service provided (standards); and

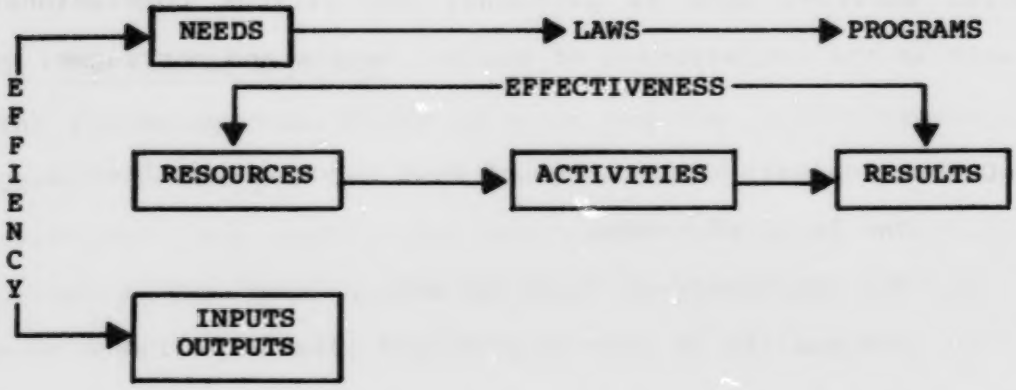
The effectiveness of program results.

While it was originally anticipated that all four areas would be addressed equally, it soon became evident to the project team that the efficiency of resource use and management effectiveness were the two more difficult areas and needed the most detailed analysis. The Quebec project team is following closely the system approach outlined in the work of Gerald Nadler, entitled "Work Design: An Integrated Approach".

The following schema, as used by the Quebec team, starts with the initial identification of needs which, in turn, become expressed through laws and are supported by programs, which consume resources through specific activities, in order to yield results, in the form of outputs.

Figure 2

Schema used by Quebec



Results are, to a large degree, dependent upon resources and resources are allocated according to need. The interrelationship of inputs and outputs to these needs then become the major subject of analysis.

Court Services for the Province of Quebec is divided into six major areas:

- Court Administration; civil, criminal, statutory (provincial statute), auxilliary services.
- Small claims (this area is the most advanced component in the analysis and a major report has been released).
- Youth court (ages 12 - 18).
- The court hearing process.
- Support to the judiciary.
- Companies registration.

The sector formats discussed in chapter VI were considered by the Quebec representatives to be a useful effort at overall data summarization and display for senior management use. When the Quebec team considers the summarization issue they will be reviewing these formats with the intention of integrating something similar into their work.

CHAPTER VI KEY INDICATOR MANAGEMENT REPORTS

A. Overview

This chapter describes the format for the display of the activity and performance measures identified, the content of those measures and the information systems used to generate the data for their calculation.

As was mentioned previously, the Ministry of Attorney General has over the past several years developed extensive automated data bases in the policing services, courts and corrections components of the Ministry. The major operating systems used to generate data for Project Four are as follows:

Police Sector - The Police Statistics System

This system produces on a monthly basis reports on offence occurances, persons charged and traffic law enforcement. In addition, reports on police and offence to population ratios and criminal code case burden are available. All information is displayed at the R.C.M.P. detachment or municipal police force level as well as being aggregated and displayed by R.C.M.P. subdivision and for all municipal forces.

Courts Sector - Court List Information System

This system produces monthly reports on court activity, caseloads, inventories and dispositions. The information is

displayed by court location and aggregated by regions and provincial total.

Corrections Sector

A statistical system reports probation caseloads on a monthly basis for each probation office. Regional and provincial summaries are also produced. This system has been suspended and is being redeveloped.

An offender master file contains extensive demographic and offence and movement related information on each person admitted to the provincial correctional system. As well as providing on-line support to operational staff, the information system generates monthly institutional statistical summaries.

B. Report Formats

The measures chosen for this preliminary set fall into the three major categories of input, output and process. The first of these major categories, input measures, is intended to reflect the number of discreet tasks with which a particular sector must cope. These indicators are volume measures and describe the number of new workload units to be processed during a given month. In one sense, these measures can be regarded as measures of demand for a particular service. While this demand does not necessarily reflect economic demand in terms of the price the consumers will pay, it does represent a

level of the expressed local need, to which the service agencies must respond.

The second major category of measures, output measures, represents the number of cases disposed of by a sector during a particular month. It is recognized that, in one sense, these output measures may more accurately be referred to as a particular type of workload measure, with more precise output measures being the number of hours of particular services provided. It is suggested, however, that the number of completed or disposed cases provides a valid starting point and can legitimately serve as surrogate output measures until such time as better measures are defined and the required data elements collected.

The third category of measures, process measures, reflects the volume of current cases that are in the system and remain to be dealt with at month end. A future refinement to process measures would included the concept of "case inventory" with a view to using inventory modelling techniques to discover optimal load points.

Copies of the preliminary monthly report formats appear in Appendix D.

All of the indicators included in the three major categories (input, output, process) are presented along five referent points. The first of these referent points appears in column one and consists of a brief description and definition of the measure itself. The second referent point, in column two, is the actual unit count of the measure for the particular month under consideration. The third referent point, in column three, presents the unit measure from the second column expressed as a rate per 100,000 population. The fourth referent point, in column four, consists of two elements. The first, is the percentage change of the unit count of the particular month (column one) as compared to the unit count of the same month during the previous year. This is intended to permit an immediate comparison of current activity level with that of the previous year. The second element in this column compares the expected value for that month based on the preceeding twelve month trend, with the actual count. This statistic, expressed as percent change, highlights both the direction and intensity of change at a particular point in time.

The final referent point, appearing in the last two columns, is labelled "Progress to Date". It is a simple arithmetic graph presenting the monthly unit count data shown for the current fiscal year. At a glance, the administrator can get a reflection of the trend for the current fiscal year.

It should be recognized that due to limited space, the graphs have not been presented with zero points. This may appear to overstate the variations between months and does not allow for comparisons between sector graphs.

C. Defining the Measures

1. Police Sector

While recognizing that the objectives of the police are not related solely to enforcement and apprehension, but include prevention and a good deal of "social" service delivery, for the purposes of this project, the indicators identified relate primarily to criminal enforcement activities.

Input Measures

- Number of Reported Incidents - this indicator is intended as an overall measure of service demand.
- Total Offences Actual - this indicator is a subset of the number of reported incidents, excluding those incidents which, for various reasons the police determine no further action is warranted. This indicator is frequently used as a measure of community lawlessness.
- Criminal Code Index - this indicator is a derivitive of the total offences founded, but includes only the more serious offence categories that have been found, by police analysts, to be reliably reported. It is

generally a more stable indicator over time and is not as susceptible to local policing policy shifts as is the previous indicator.

- Total Criminal Code - this indicator is a count of the total number of actual criminal code offences.
- Criminal Code Motor Vehicle - this indicator is a count of the number of Motor Vehicle infractions under the Federal Criminal Code.
- Provincial Motor Vehicle - this indicator is a count of the number of Motor Vehicle infractions under various provincial motor vehicle statutes.

Output Measures

- Clearance Rate (actual) - this indicator is a ratio measure of all cases cleared by the police. This measure is further broken down to indicate the precentage cleared by charge and "otherwise".
- Clearance rate (Index) - the above ratios are also calculated for offences for the index category.

Process Measures

- Case Burden - this is a ratio measure of the number of Criminal Code incidents per regular member. It is expressed in terms of municipal and R.C.M. Police forces.

Other Measures

- Actual vs. estimated - this indicator monitors actual expenditure as a percentage of prorated monthly

budget allocation for R.C.M.P. provincial police service.

- Overtime - this indicator monitors the dollar value of overtime for provincial policing.
- Ratio of Population to Officer - this indicator relates the two variables of capacity to respond and population size.

2. The Court Sector

It should be noted that in referring to the Court Sector for purposes of this report, no specific information on the various sub-units in the court process - prosecutors, judges, court reporters, sheriffs and the like is provided. Rather than focus on these individual activities, indicators for the court sector focus on their interaction as a whole. No statistical information is routinely available for the County, Supreme or Appeal Courts.

Input Measures

- Number of New Cases - this indicator is a count of the number of cases with which the court process must deal on a monthly basis. At this time, it is the single input measure that has been defined. It is expected that after further analysis, additional input measures will be defined.

Output Measures

- Number of Completed Cases - this indicator represents the number of cases for which processing in the Provincial Criminal Courts ceased during the month. Included are those cases by way of final disposition, stayed, removed to a higher court or for which the accused did not appear and a bench warrant was issued.
- Number of convictions - this indicator is a count of the number of convictions that were obtained during the month and is a subset of the total number of completed cases.
- Number of Discharged/Acquitted - this indicator, again, is a subset of the total number of completed cases. It reflects those cases that were either found not guilty or given absolute discharges.
- Number Removed - this indicator is a unit count of those cases which, for some reason or another, were not processed to completion. They include primarily those cases for which a "stay of proceedings" was entered by the Crown.
- Higher Court Election - this indicator provides a count of those cases where an accused elects to have his case proceeded with in a higher court.

- Number of Bench warrants Issued - this indicator provides a count of the number of bench warrants issued for non-appearance and is again a subset of "Number of Completed Cases".

Process Measures

- Total Number of Cases - this indicator is a volume measure and included all new cases introduced during the month, bench warrants reactivated and cases still active at the end of the previous month.
- Average Delay of Active Cases - this indicator represents the mean delay (in days since first appearance) of all cases still pending completion at month end. Case delay has, for some time, been considered an important performance indicator in relation to the Provincial Criminal Courts in B.C.
- Percent Greater Than 180 Days - this indicator relates to the pending cases at month end that have had more than 180 days elapse since first appearance. A standard related to the concept of a "speedy trial" has developed in this Ministry which states that no more than 15% of all active cases should have been in the Provincial Court system for more than six months.

Other Measures

- There are four budget variance measures proposed, two for Crown Counsel and one each for the Court Services

Division and the Provincial Court Judiciary. Again, the variance measure is expressed as a percentage over or under expenditure as compared to the prorated monthly expenditure estimate. In the case of Crown Counsel, estimates for ad hoc counsel are separated from those for staff counsel.

- Overtime - this indicator is a measure in dollars of overtime costs incurred by the Court Services Division. Overtime expenditures for Crown Counsel and Provincial Court Judiciary are for support staff only and, hence, are not included in the key indicator formats.
- Establishment Ratio - this indicator is a ratio of the number of "established" positions (meaning permanent public service employees) filled to the numbers approved by Cabinet expressed as a percentage for both the Criminal Justice Division, Crown Counsel and the Court Services Division.

It should be noted that, at this time, the Ministry's budget structure does not permit the isolation of Court Service Division or Provincial Court Judiciary dollar or manpower expenditures on criminal court related activities.

3. <u>The Corrections Sector</u>

In the Corrections Sector, there are two major components of service provided. These are:

- Those services that are provided through Correctional Institutions; and
- Those services that are provided through community services, i.e. probation, parole, diversion and family counselling.

<u>Input Measures</u> - Community Services

- Total Number of Admissions - this indicator is a unit count of admissions. This count reflects all of the intake (demand for) community services during a specified month. It is important to ensure that provincial "intake" does not include "transfers in" from other offices.
- Adult - this indicator is a measure of all adult admissions to the Community Services Component of the Corrections Branch during a particular month.
- Juvenile - this indicator is a measure of all juvenile admissions to the Community Services Component of the Corrections Branch.
- Family - this indicator does not appear on the form, as yet, because no data exists at a provincial level. It is, however, a major category of service provided by the Corrections Branch and steps are being taken by the Branch to provide for the collection of this data.

- Parole - this indicator is a measure of all Parole admissions to the Community Services Component of the Corrections Branch. This parole measure contains two categories of cases, B.C. and National parole admissions. Parole activity, although relatively small by comparison to the other components, is included for monitoring because of the newly expanded role performed by the British Columbia Parole Board. One will normally expect large increases in indicators for this area as the Parole Board develops and expands its mandate and influence.

Output Measures

The set of indicators comprising output measures reflects the number of cases completed during the particular month under consideration. It should be noted that the term "completion" means supervision has ended. "Transfers out" to other offices should not be included. A future refinement for these measures will be to report output in terms of the number of hours spent in the delivery of a specified activity type related to historical levels or standards. The Corrections Branch is currently investigating expanding the use of the concept "supervision day" for community services. When the use of this measure has been developed within the Branch, it will be integrated into the indicator statistics.

- Total Completed Cases - this indicator is a measure of the number of completed (end of supervision) cases during a given month. This measure is in reality the number of closed cases, but is being used as a surrogate output measure pending an update of the caseload system.
- Adult - this indicator reflects all adult case completions during a given month.
- Juvenile - this indicator is a measure of all juvenile case completions during a given month.
- Family - this indicator does not appear on the form, as yet, because no data exists at the provincial level. With the inclusion of this category into the revised caseload system, this activity will be measured.
- Parole - this indicator is a measure of all Parole case completions to community services. It is the combined total of both B.C. and National Parole cases.

Process Measures

- Adult Caseload - this indicator provides a unit count of the total number of adult cases under supervision during the month.
- Juvenile Caseload - this indicator provides a unit count of the total number of juvenile cases under supervision during the month. This count includes formal court ordered supervision as well as informal, diversionary counselling.

- Parole Caseload - this indicator provides a unit count of the total number of parole cases under supervision during a month. This count includes both B.C. and National Parole cases.
- Family Caseload - this indicator provides a unit count of total number of cases receiving family counselling during a month.

Other Measures

- Cost Per Supervision Day - this indicator records the total costs involved in providing community service supervision.
- Establishment Ratio - this indicator integrates caseload or workload data with personnel data and implies that the staff allocation function can be impacted by the size of caseload and the number of staff existing in an organization. By constructing and using an establishment ratio (the number of vacant positions divided by the number of established authorized positions), one is able to monitor these fluctuations, compare them to the input demand levels and reallocate or change staffing patterns. This indicator reflects the organization's ability to respond to increases in input.
- Overtime - this indicator measures the amount of overtime in dollar values. It is important from a

managerial perspective, because it monitors an organization's response to crisis demands or unexpected levels of input of short duration. It also may be used as an indicator of whether the current staffing levels in an organization are appropriate to cope with the current input or it may simply be used to flag management's attention that the overtime use has exceeded specified levels and should be investigated further.

- Actual vs. Estimated Expenditure - this indicator reflects the actual amount of money spent compared to the amount of money originally estimated to be needed on a prorated monthly basis.

<u>Input Measures</u> - Institutional Services

- Total Admissions - this measure counts the number of admissions coming to the institution. Note that this indicator is in terms of admissions, not persons. For example, an individual may have two or more admissions during one month. This can occur because the majority of persons sentenced to provincial institutions remain there for short periods. In addition, a person who is initially admitted under remand status and later has his status changed to that of sentenced, will generate two admissions (one under each status). This method of accounting is appropriate for management control,

because each time a person enters or exits from an institution, even though this exit or entry may only reflect a change in status, this action represents a unit of work that must be performed by correctional staff, particularly for the records management and classification functions.

- Sentenced - this indicator is a count of all admissions into institutions with a status of sentenced. It includes all persons admitted under sentence as well as persons defaulting on payment of a fine.
- Remand - this indicator is a count of all institutional admissions having remand status. There are three categories of remand classification: straight remand, sentenced and awaiting trial, immigration hold. Therefore, there will always be a small proportion of persons potentially having conflicting status. The rules for accounting are defined in the system documentation.
- Return to Jail Rate - this indicator is a type of recidivism index. It is recidivism applied specifically to the jail component of the Corrections sector. Although there is much criticism in the use of recidivism data, this criticism stems primarily from a lack of definitional clarity when that term is

used. It is an important indicator because it has the potential to identify the number of cases that are particularly problematic to the system. Institutional reports from the Corrections master file differentiate this return rate in terms of discharges within the last two years, and discharges more than two years ago. The rate considered for this indicator set is a total rate which includes both categories.

Output Measures

- Total Discharges - this indicator is a count of the total number of discharges from institutions. Again, this does not necessarily mean the number of persons discharged per month. As in admissions, one person may have more than one discharge. Again it is argued, that this counting method is valid in that each discharge generates workload and represents a draw on institutional resources.
- Sentenced - this indicator is a count of all discharges and releases having a status of sentenced.
- Remand - this indicator is a count of the number of discharges and releases having a status of remand.

Process Measures

- Total Count - this indicator is the average weekly count of the actual number of persons resident at institutional locations during the month. The count

used for this indicator is taken from the computer file and reflects an actual person being present. It may, from time to time, differ slightly from the "legal count" as the "legal count" will include those persons released at court, while the institution has not immediately received a copy of the legal order discharging that person.

- Sentenced - this indicator is the actual number of persons in institutions having the status of sentenced. This is a discreet count which does not include persons who have been sentenced on one charge and are on "awaiting trial" status for another charge.
- Remand - this indicator is the count of persons who are in the institution under the status of remand.
- Utilization Sentenced - this indicator measures the percentage of total sentenced capacity occupied. The average of the weekly sentenced count and management determined capacities are used.
- Utilization Remand - this indicator, similar to the above measure, relates the remand space capacity to the actual number of remand persons resident in institutions.
- Escapes - this indicator is a count of the number of escapes during a particular month. It is a measure that may have more immediate relevance to detailed

correctional management but it can also be used as a surrogate measure of community security.

Other Measures

- Actual vs. Estimated - this measure reflects the total amount of money spent on institutions on a monthly basis compared to the monthly estimate.
- Cost per Inmate Day - this indicator measures how much it costs to house an inmate in an institution on a daily basis.
- Staff/Inmate Ratio - this indicator is a ratio of the number of staff per inmate.

4. The B.C. Parole Board

In British Columbia the Parole Board is a separate administrative unit within the ministry structure, although it is tied very closely to the Corrections Branch with respect to the people the Board deals with.

Input Measures

- Parole Opportunity Rate - this indicator is a measure of the number of persons technically eligible for parole in comparison to number of inmates in provincial institutions.
- Number of Applications - this indicator is a unit count of the number of applications for a parole received by the Board.

Output Measures

- Number of Decisions - this indicator is a unit count of the number of parole decisions made by the Board.
- Decision Grant Date - this indicator is a ratio measure of the number of paroles granted compared to the number of applications reviewed.
- Decision Revoke Date - this indicator is a ratio measure of the number of Parole Revocations compared to the total number of decisions taken.
- Decision Suspend Date - this indicator is a ratio measure of the number of Parole Suspensions compared to the total number of decisions taken.

Process Measures

- Number of Hearings Held - this indicator is a unit count of the number of hearings held by the Board.
- Total Hearing Days - this indicator is a unit count of the number of days per month spent by the Board in decision hearings.
- Parole Grant Date - this indicator is a ratio measure of the number of paroles granted compound to the institutional population.
- Parole Revoke Date - this indicator is a ratio measure of the number of paroles revoked compared to the total number on parole.

Other Measures

- Cost per Hearing - this indicator records the total costs invoked in providing a parole hearing.
- Actual vs. Estimated Expenditure - this indicator reflects the actual expenditure compared to the estimated expenditure on a monthly basis.

PART THREE A LONG TERM PLANNING PROCESS

As was discussed earlier in this report, Project Four must be viewed as part of a larger initiative underway within the Ministry of Attorney General; an initiative aimed at improving the quality of information available to senior managers to permit improved management control and long term planning. The particular model adopted within the Ministry is one which emphasizes the importance of the budget process, and the cycle in which it operates, to the planning process. Part III of the report attempts to place Project Four within the context of that larger initiative and to illustrate how information generated during the course of the Project was used to contribute to that larger initiative.

CHAPTER VII LINKING WITH THE BUDGET PROCESS[1]

In July of 1981 the Ministry Policy Executive approved in principle the development of the long range strategic planning process. Specifically this decision was a response to the two issues of: the need to identify and generate the quantitative information necessary to support the budget process and the

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1 This chapter draws heavily on the excellent work of John W. Camillus entitled The Practice of Strategic Planning.

need to develop a procedure for the establishment of priorities and plans on a Ministry wide or corporate basis. The basis of these planning decisions will be supported by, and result from, the collection and subsequent analysis of historical data gathered on activities performed by various units within the Ministry.

In view of the increasingly uncertain nature of the social, regulatory, technological and economic environments affecting the Ministry of Attorney General the functions of planning and control will become a formally integrated process that is regularly monitored within the Ministry . The term "strategic planning" refers to debating fundamental objectives and setting long term priorities of the Ministry. This strategic planning process assumes a capacity for "operational" and short-term (tactical) planning in order to translate the ministry's strategic goals into operational realities.

Within each divisional unit of the Ministry, there exist persons or designated units currently involved in this short-term "operational planning" function. At the same time, however, there have been only periodic and scattered attempts at what could be called strategic planning initiatives for the Ministry as a whole. This situation is partially a result of:

an emphasis on an evolving de-centralized management style with respect to the relatively autonomous divisions which in turn often have conflicting objectives; a dynamic and rapidly changing external and internal environment requiring rapid decision making as new situations arise; and a lack of formally applied resources to this task. A continual pressure being applied by central agencies (i.e. Treasury Board) and their particular emphasis on social service programs suggested that it was opportune to formalize a strategic planning cycle not only as a defence against the possible erosion of existing resource levels but also as justification for increases in resource requirements anticipated in the future. A critical element of any planning and control procedure is a good reporting and control system.

A. The Relationship Between Planning and Control

Planning has various definitions but the following definition is suggested as being one of the more useful:

> an assessment of the future, the determination of desired objectives in the context of that future, a development of alternative courses of action to achieve such objectives, and a selection of course (or courses) of action from these alternatives.

Control is seen as a means of ensuring that desired objectives are achieved and performance (including efficiency and effectiveness) is monitored. The classical concept of

control, borrowed from the physical sciences, focuses on measuring the deviations of actual output from planned output as well as on feedback and remedial actions to influence inputs, or the process, in order to effect changes in planned output. This idea of control needs some modification for use in the context of the human service organizations such as the administration of justice. The judgmental and changeable nature of expected performance; the tenuous link between intent and action; and the need for coordination make the pure model problematic in this context. A more suitable definition of control in this situation is:

> a process of measuring and evaluating
> the performance of individual organizational units
> with the intent of ensuring:
> - that executive policy decisions and actions are congruent with the desired organizational objectives;
> - that shortfalls from expected performance are identified;
> - that appropriate remedial action to eliminate or explain these shortfalls are initiated; and
> - that the taking of remedial action is monitored.

Identifying within the management process the functions of planning and control is not meant to suggest that they are two distinct and discreet areas of concern in the process of management as neither activity can be carried out in isolation. Furthermore, it is not possible to adequately control without having first adequately planned. The need to plan prior to controlling stems from the fact that planning, is the means by which objectives and courses of action are decided upon by the Ministry. Without these guidelines - objectives and selected courses of action - it is not possible

to determine whether the Ministry is deviating from, or operating within, management expectations. Control is not possible without the benchmarks or guideposts implicit in planning. For the same reason, it is not reasonable to conceive of planning as being independent of control. Control over direction is what ensures that the plan in reasonable. Planning without ensuring that it is effective and efficient often leads to frustration and confusion within the process. The feedback on actual - versus - planned performance is an essential ingredient of future planning, while the improved understanding that comes from analyzing the causes and results of variances between actual and planned performance yields more realistic and better formulated plans. The planning and control functions are not only necessary to each other, but become mutually supportive. They are meaningful only when considered together because they are then able to maximize the supportive aspects operating between them.

A Framework for Strategic Planning

To effectively use a strategic planning and control system an appreciation of what the system can and should accomplish, as well as a broad understanding of the nature of the Ministry activities, is necessary. For B.C., the Executive Committee, as a group becomes the chief planning architect. Major benefits can flow from this strategic planning process in both the short and long term. These benefits are:

1) Strategic planning increases the level of creativity employed in managing an organization. This process exercises the creativity of those engaged in planning through the process of generating original and feasible alternatives for the future. Because of this strategic planning can be viewed as a training device which aids managers to recognize and exploit their creative potential.

2) Strategic planning is most widely, visibly, and explicitly employed as a means of determining long term objectives for organizations and as a means of devising strategies for accomplishing these objectives. Constructing a meaningful statement of objectives and strategies for achievement can help build morale by developing an explicit and implicit understanding of the raison d'etre of the Ministry.

3) Strategic planning is widely employed as a means of defining a framework or <u>strategic context</u> within which an organization's <u>operating plans and budgets</u> are developed. Such a framework can range from specification of the annual priorities of the Ministry together with clear cut indications of the operational actions necessary to achieve these ends, to a broad indication of the general organizational philosophies and attitudes toward growth, service and preferred areas of new programming.

4) Strategic planning systems are excellent vehicles for facilitating communication between management levels within the Ministry and also among the Divisional Units. As in the case of creativity, better communication is not only a possible result of planning, it is often a pre- requisite to effective strategic planning.

The heart of the strategic planning process consists of analyzing "strengths, opportunities, faults, and threats." The acronym "SOFT", describing this analysis, involves an analysis of the environment in which Justice operates (the Ministry as a unit within the larger organization of government) and an analysis of the organization itself [(the Ministry and its relationship with the various divisional (sectoral) units)]. In addition to the "SOFT" analysis described above, two other factors are of major importance to any strategic planning process. First is the set of aspirations or "values" to which senior management subscribes. These values both suggest and prescribe strategic alternatives. Second, both ethical and pragmatic considerations require attention be given to the preferences of all of those with a legitimate stake in Justice activities, i.e. the needs, desires, and objectives of sectoral units as

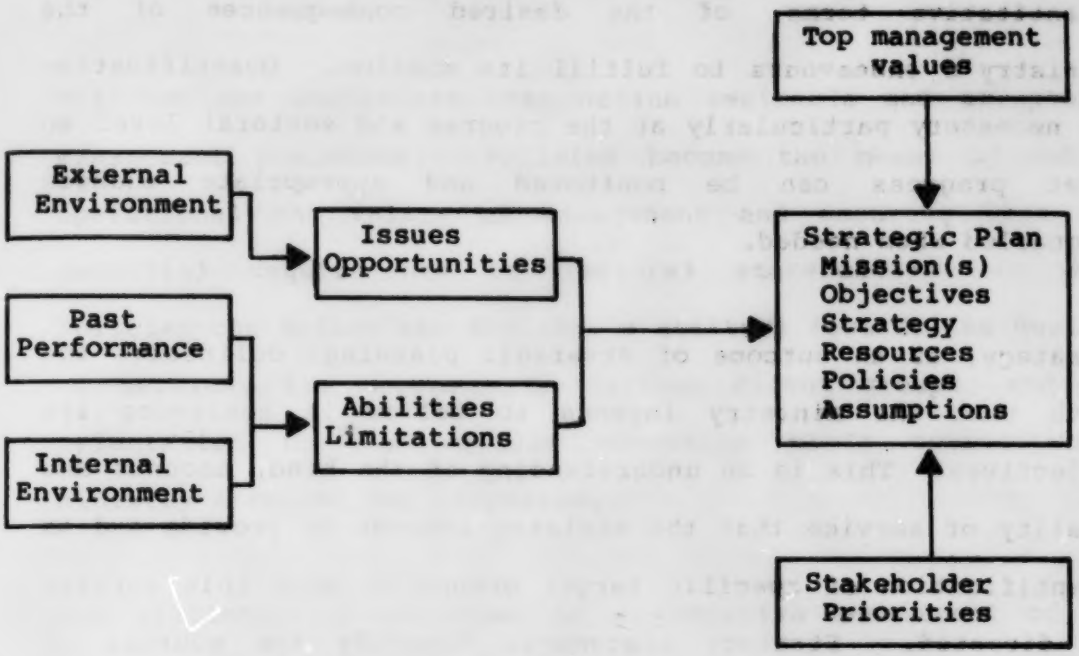
well as the needs and demands of other institutional entities (other government departments or units). Essentially, the strategic planning process that is being described involves the execution of a SOFT analysis, with the subsequent definition of a strategic plan in the context of top management's values and the various stakeholders' preferences.

Components of a Strategic Plan

The strategic "plan" itself consists, of an implicit or explicit understanding of the raison d'etre or mission of the organization, a statement of the long term continuing objectives of the organization, a determination of the strategy to be employed in achieving those objectives, a specification of the policies to be adopted by operating managers, an estimate of the resources available to the ministry as a whole and to each of its major divisions and a listing of the assumptions regarding the organization and the environment on which the strategic plan is based.

These fundamental elements of strategic planning can be integrated into a framework outlined in the diagram below:

Figure 3
A Framework for Strategic Planning



This framework is crucial to an understanding of the individual design elements of a plan and how they become integrated. The broadest and perhaps most crucial output of strategic planning is a formal understanding and statement of the organization's mission. It is important that this statement of mission clearly define and limit the areas that the organization wishes to consider but at the same time be broad enough to allow the development of activities other than existing ones. It should be flexible enough to allow creative alternatives to operate in various operating sectors and yet be precise enough to stimulate an identification and affinity with a Ministry perspective.

The objectives of Justice are a determination, stated in quantitative terms, of the desired consequences of the Ministry's endeavours to fulfill its mission. Quantification is necessary particularly at the program and sectoral level so that progress can be monitored and appropriate changes signalled when needed.

Strategy, as an outcome of strategic planning, delineates the path that the ministry intends to follow in achieving its objectives. This is an understanding of the kind, amounts and quality of service that the ministry intends to provide and an identification of specific target groups to whom this service is directed. Strategy statements identify the sources of support, types of personnel, nature and intent of the services offered, and client target groups, in a manner that guides the creative development and effective administration of programs which assist in providing specified services. Without such a statement, Justice may well find itself faced either with an overwhelming range of feasible program alternatives, without the ability to decide among them, or with a paucity of ideas on how to best operationalize its mission. In short, a well formulated statement of strategy relates and integrates the organization with its environment. It is a positive, pro-active, directive statement that guides the

operationalization of the various sector units and delineates the different approaches taken in accomplishing objectives.

Policies are statements that define desirable and acceptable management practices. Policies become the means of making operational the values of management and assuring that the essential requirements of sectoral stakeholders are met. Policies can define the Ministry's attitude towards the quality of service, its approach to various client groups, and its orientation to the various community needs toward which Ministry services are addressed.

The statement of resources is a tentative assessment of the magnitude and kind of resources, human, financial and physical, available to the various managers responsible for implementing a Justice strategy. This statement (the budget statement) provides broad guidance as to the levels of activity and kinds of feasible programs in terms of the available resources. The allocation of resources to various sectoral units ideally reflects the strategic importance that senior management ascribes to each of the Divisions in fulfilling the overall Ministry mission. Ideally the budget ranking process becomes the vehicle for providing this aspect of the plan.

Finally, a statement of assumptions is necessary to assure that program planning and control activities, performed at levels below top management, are consistent with the strategic plan. If, for example, different assumptions about the likely environment of the organization are made at different levels in the organization, not only will any apparent consistency between strategic plans and program action plans be purely coincidental, but severe problems will be encountered later when implementing and reviewing these plans. If actual performance deviates from planned, then top management, i.e. the Executive Committee, and lower levels of management, i.e. the various sectoral regional units, will inevitably find themselves at odds about the responsibility and causes for deviations and what, or if any, remedial action to take. It is imperative, therefore, that the key assumptions made by top management in defining a Justice mission, objective and strategy be formally stated and communicated throughout the organization.

The Analytic Basis of a Ministry Strategic Plan

The preceding discussion and description of the strategic plan has made the assumption that planning and control are essential tasks that must proceed together and that the development of a strategic plan will enable the Ministry to better prepare and

improve the estimates process and define a mechanism for developing long-range ministry priorities.

Considerable resources have been expended on the development of sectoral operational information systems. The data, already produced, or producible from existing systems, become the critical base upon which to build a strategic plan. Activities in support of this planning process comprise the application of scientific principals, methods, and/or theories to identify, describe, conceptualize, measure, predict, change and control those factors seen as important to the development of effective service delivery within the Ministry.

Developments within the divisions have demonstrated that we currently generate a significant amount of data which is directly useable for descriptive time series analyses, and that this data is indeed essential to an overall ministry planning process.

One of the major inputs to the strategic planning process is the analysis of the Ministry's past performance both in quantitative and qualitative terms. Important insights can be derived from analyzing records of Ministry activity over the

past several years. It is generally regarded that 5 years of data (i.e. 60 data points) is a minimum requirement for time series analyses.

Dominant trends are much more meaningful and provide a better understanding of sectoral impact than performance or activity measurement at a single point in time. Trends graphed in relation to key indicators over time provide visual inputs to managers and greatly simplify the interpretation of potential policy impacts. These quantitative trends should focus on the cost of raising required resources, the amount of resources used, the efficiency with which these resources are employed, the size and the quality of the outputs generated by the sectors, the degree to which the organization was effective in achieving its stated objectives and the coverage and reactions of the target population to whom service was delivered.

In addition to using the quantitative aspects of trends to relate to future demand levels, policy evaluation questions can be asked regarding what actions or decisions in the past have impacted these trends. These analyses can then provide insights into the types of policy decisions which are likely to influence future trends. The analyses of past performance by means of monitoring trends should provide a basis for the

probable upper, and acceptable lower, bounds of achievement given existing resource constraints.

In particular this performance indicator project has demonstrated, at least for B.C., that there exists a sufficient data base to permit descriptive time series analysis. These descriptive trends can be used to develop a strategic corporate plan. Trends in demand for service, staffing levels and budget levels needed to satisfy this demand can be plotted and predicted for the future. These predictions are what will be refined and integrated into a Ministry planning process over the next year.

A working model of projection involves taking what is known or what has occurred (historical data) and extending the data series mathematically for further periods into the future. While projections and forecasts are not sufficient, by themselves, to determine future decisions they do become valuable aids in constructing scenarios for future policy decision making when combined with the intuitive skills and operating experience of senior management. In the short term, these projections will likely be used to establish support for positions taken by the Ministry. In the long term, they will be used to assist in determining priorities for systematic

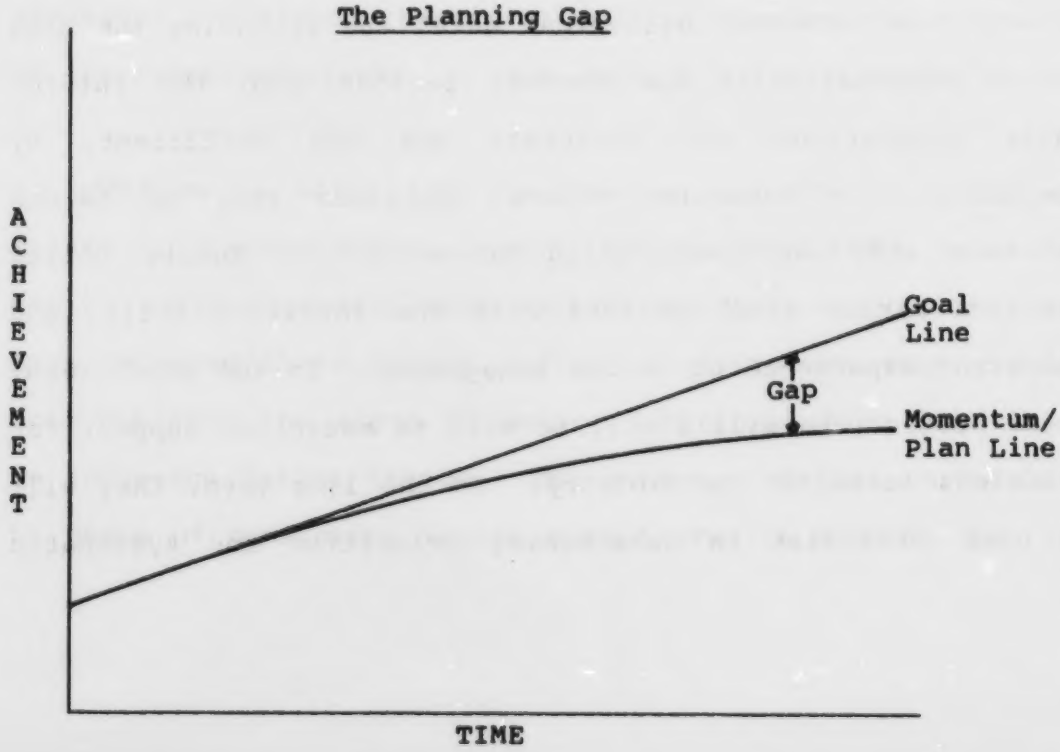
change and in monitoring the effect and impact of particular policy changes (program evaluation).

By predicting future trends in terms of demand for staffing levels and budget, and by integrating them with expected funding or resource levels we can identify any shortfall expected, their expected amounts and what strategies are necessary to cope with these gaps both for individual sectors and the ministry as a whole.

The following diagram outling a "planning gap" illustrates an anticipated short fall in expected, as opposed to desired level of achievement, be that resources, performance, or levels activity.

Figure 4

The Planning Gap



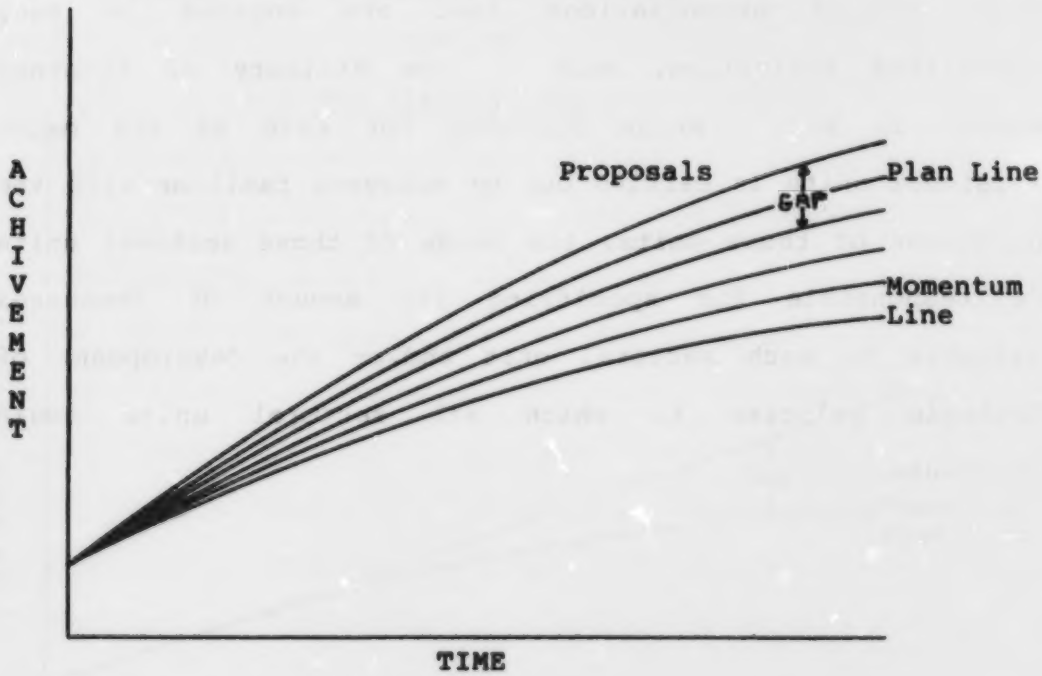
The concept of a planning gap shows the desired levels of achievement as well as the likely level of achievement if no changes are made in existing operations. A difference between the desired level of achievement and a likely level of achievement, with no changes to the existing operations, is called a planning gap. Following the identification of this gap (or shortfall) efforts can be made to fill or eliminate it. A desired level of achievement over time is called the goal line and the likely level of achievement is called the momentum or plan line.

This concept of the planning gap is primarily applicable to large complex organizations that are engaged in many diversified activities, such as the Ministry of Attorney General in B.C. While planning for each of the major divisional units is carried out by managers familiar with the operations of those units, the heads of those sectoral units are responsible for specifying the amount of resources available to each sectoral unit and/or the development of strategic policies to which all sectoral units could contribute.

The concept of a planning gap can also be utilized by sectoral units within the ministry. The effect of the different proposals for expenditure and resource allocation in the budgetranking process can be aggregated sequentially giving priority to the strategically more attractive ones, a potential plan line which would thus be arrived at from the sum of all sectoral proposals. The Ministry will then be in a position to differentiate and determine the feasibility of rating additional resource proposals to adjust the plan line closer to the potential line. This procedure is diagrammed as follows:

Figure 5

The Gap Concept Applied to Budget Ranking



The foregoing method for using projections contained in historical data, the development of a corporate strategic plan, and the application of the planning gap technique, is expected to accomplish the following:

- It will increase the amount of summarized information available to, and shared by, members of the Executive; thereby increasing communication among divisional units;
- It will help provide defence against the potential erosion of resources now available to the Ministry; and conversely it may provide justification, and indeed a solid business case, for an expansion of resources sought by the Ministry; and
- It will stimulate the creative and experiential skills of individual executive members.

Integrating Priorities with Data

Project Four is viewed as providing the necessary stimulus for the detailed analysis and integration of data being produced by the major divisions of police, courts, and corrections. This analysis focused on the existence of inter-relationships among the three data sets. The methodology employed for demonstration purposes is intentionally simplistic. Box-Jenkins and other elaborate econometric techniques were avoided.

Simple regression equations and the Statistical Package for the Social Science (SPSS) were utilized initially to demonstrate that useful results can be obtained without the use of sophisticated modelling techniques. All that is required is a knowledge of basic statistics, SPSS, and access to a computer site either at a University or at a generalized government facility. Some knowledge of using and storing data sets as well as a remote terminal greatly facilitate the task of analysis and data integration.

It is not so much the implementation of Project Four that will be taking place in B.C. over the next while, but rather the implementation of the previously described planning process which will rely heavily on the data and the techniques developed during Project Four. As well, a refinement and extension to the basic methodology will include formal time-series modelling.

In the police sector for example, municipal and R.C.M. Police workloads need to be differentiated. As well, offence categories will be standardized across sectors, so that one unit of analysis will be the ratio of Police charges, to Court cases, to Corrections admissions.

Traditionally, it has been argued that because the Police sector workload is counted by the number of charges, the Court sector workload counted by the number of cases (multiple charges and/or individuals) and the Corrections sector workload counted by the number of admissions, very little useful analysis can be done without the establishment of a large master system that tracks individuals from point of entry to exit from the system. While master tracking may be the ideal research tool, it is unlikely that it will become a reality given economic, practical and organizational issues at stake. It is suggested that, in the past, a preoccupation with the development of such master tracking systems has diverted scarce resources from more practical approaches utilizating time series and other basic econometric techniques. The principle that the Administration of Justice should be viewed systemically does not mean that operational information systems must themselves be integrated into one system.

The planning process leading to budget preparation and policy and strategy review is described below.

Step	Date	Activity
1	April - May	The first fiscal frame work "status quo" is developed. During this exercise, projections of levels of service demands are made with the assumption that there

will be no policy or program changes occuring in the various divisions. Those projections are then valued in current dollars to arrive at approximate expenditure levels.

2	May - Sept.	During this activity existing policies and policy issues are reviewed. In addition the policies of the past fiscal year are analyzed and assessed in terms of the degree to which they have or have not met expectations. Also, possible reasons why they not have met expectations are described during this phase.
3	Oct. - Nov.	A second fiscal frame work is developed. During this period any potential shortfalls or "GAPS" are identified. These shortfalls are essentially a comparison of the data from Step 1, (the expected cost based on projected demand) compared with the revenue estimates which have been produced by central agencies for the Ministry. Also during this phase, the preparation of various options to deal any the shortfalls that will be encountered, or program initiatives that can be taken if

4	Dec. - Jan.	expansion is allowed, are prepared. During this phase the various policy options available are presented to the Ministry Policy Executive for feedback. As well these options are discussed with the various analytical groups within the divisions for their input.
5	Feb. - Mar.	This activity comprises the final definition and consolidation of options that have been selected and the justification of these options. During this phase adjustments are made to the data in light of the final options chosen.

Graphs were used to present the data and forecasts produced from the initial demonstration of Project Four results. These results contributed in large part to the decision to refine and proceed with the "strategic planning" process. A complete set of graphs appear in Appendix E.

B. Basic Forecast Methodology

These initial forecasts were derived using a simple regression model developed for purely descriptive and predictive purpose. The regression model represents a linear association between units of work load or demand on the Y axis with time

represented on the X axis. This was utilized both because most analysts and managers should be familiar with linear regression. The form of the regression equation is:

$$Y = B_o + B_1X_1 + e$$

B_o and B_1 represent a constant and the regression coefficient of X_1 respectively. The symbol e represents the error term and is the extent to which the regression fails to account for the variation in Y for any given level of X. Sample data is used to estimate the parameters B_o and B_1. These estimated equations take the form:

$$\hat{Y} = b_o + b_1X_1$$

the parameters B_o and B_1 have been replaced by their best estimators b_o and b_1. $\hat{Y}$ denotes predicted value of Y.

Having developed the simple regression equations for these sectors they are examined for: 1) the appropriateness of the linear model - is it apparent that the true association between the two variables is really linear? <u>AND</u> 2) the strength of association - how much of the variation in the dependent variable is explained by the linear regression. The R^2 statistic is used in this instance to measure how well the model fits the data. Having developed sectoral regression equations, they can then be applied to a simple time series design that summarizes trends in the data.

One of the most troublesome problems in analyzing time series data, however, is known as <u>autocorrelation</u>. Because most time

series are not made up of a set of randomly selected observations, but rather, observations at periodic intervals of time, there is a tendancy for time ordered observations not to have independent error terms. This occurs most often because:

1. the values associated with observations at sequential intervals are not independent and;
2. the cyclical impact of extraneous variables and seasonality.

Even though a particular series may be autocorrelated, the least squares regression coefficients will still be unbiased, but many of the associated statistics will not be valid and so interpretation not always obvious. Generally the standard error of the regression coefficients, as well as the estimated variance around the regression may be underestimated and, therefore, the use of confidence intervals and tests using the t and F distributions may not be applicable. The presence of autocorrelation can sometimes be detected in a visual analysis of the residual plots over time, but it is most generally tested for using the Durbin-Watson test statistic which is produced by SPSS. In SPSS this test for residuals is based on the differences between the residuals of adjacent cases in a sequenced file. This statistic is then compared with the uppper and lower bounds in a standard Durbin-Watson table. If D is below the lower bound, this indicates that the series is autocorrelated. If D exceeds the upper bound, this leads to the conclusion that the series is not autocorrelated. If the

value of D falls in the range between the two bounds, the test is inconclusive.

Because the data from the three sectors, when plotted, appeared to have definite seasonal characteristics an additional variable was created to account for that part of the dependent variation that was tied systematically to monthly or seasonal changes. The pre-analysed series for Police evidences a gradual upward trend which was overshadowed by a systematic pattern of peaks and valleys (low in the winter months and high in the summer months). In adding this additional variable to the model, the objective is to explain the variation as a function of the secular time trend and season. Time trend in this case was represented by a single variable in which the observations were numbered consecutively from 1 = January; 2 = February etc. for 60 intervals. The seasonal variation from month to month was captured with a set of twelve dummy variables, one for each month coded as follows: D_1 = 1 for January, 0 for any other month; D_2 = 1 for February, 0 for any other month, etc.

Using the Police, for example, data set, the regression of reported incidents on the time variable and the dummy variables over the sixty months series provided a good fit to the data with an R^2 of 0.89. The police graph contained in Appendix E

shows the actual number of reported incidents along with the volume for each month predicted by this regression. The dashed line represents the predicted values and the forecasts into the future on a basis of the time and seasonal variables in the regression. This projection follows the same upward trend, but it is now adjusted for the summer-winter seasonal variation observed in the actual data series. If the reader wishes to pursue this simple time series approach, he is referred to chapters 14 and 15, "Public Program Analysis Applied Research Methods" (Theodore H. Poister, 1978), and Applied Program Evaluation In Local Government (Poister, McDavid, Magoun, 1979). While this is a very simple approach to time series analysis it was selected for demonstration purposes and is a technique with which most analysts would be familiar.

The particular facilities used during Project Four were the Provincial Government computer facilities located at the British Columbia Systems Corporation. The specific release of SPSS used is for OS/360, version H, release 8.0, December 1978. The latest version of SPSS, however, is release 9.0 and should now be available at some computer installations. The latest release includes a Box-Jenkins and other procedures for time series analysis.

In addition, there is a graphics package (tell-a-graf) interfaced to this release. Packages such as SPSS, release 9.0 greatly facilitate the production of good quality graphics without requiring intensive programming experience.

By way of conclusion, several lessons or insights were gained as a result of experience gained during the course of Project Four. Foremost among them was a confirmation of the old adage of "keeping things simple". Senior decision-makers have very little time to devote to specific projects, or to spend on trying to understand complicated models. They are interested primarily in broad overview perspectives and it remains to the analyst to convey his message briefly and clearly and succinctly. The following points summarize these insights:

1. The overall process <u>must</u> be kept simple. This is particularly true in the early stages of development when it is essential to assist senior executives in understanding the process and generating their support for it. The analyst must avoid the temptation of moving immediately to sophisticated modelling techniques and run the risk of generating information incomprehensible to senior managers.

2. The performance and activity measures must be tied to the operational budget process. If this is not done then it is very easy for senior managers to view the process as an abstract conceptual exercise with no relevance to the operational and budgetary concerns.

3. Completely integrated system wide offender tracking systems are not a necessary first step for better management statistics. While the "ideal" tracking system may remain something towards which the E.D.P. professional may strive, it must be clearly recognized that there are serious organizational and political barriers that must first be overcome. Far too often, in pursuit of the "ideal", some very simple operations research techniques, such as ratio-analysis, are forgotten and ignored.

4. Sophisticated models are not a requirement for analysis to have impact. A necessary first step in the process of improving the capabilities of senior managers to control program operations is the generation of basic descriptive statistics that illustrate general activity levels and historical trends in caseloads and expenditures.

APPENDIX A. PRELIMINARY B.C. INDICATORS

Other Ministry Measures

Legal Services Commission

Program Size Indicators:

- number of applications for legal aid;
- number of cases involving native peoples.

Measures of Effectiveness:

- percentage of those who applied for legal aid who did not receive it;
- length of time from application to lawyer appointed;
- percentage of native cases which did not receive native court workers.

Legal Services to Government

Advice to Government - Civil

Program Size Indicator:

- number of requests for advice.

Measures of Effectiveness:

- percentage of requests for advice which are not met within 30 days;

- percentage of requests which are not met within one year;
- length of time to satisfy a request;
- number of law suits against government (civil).

Advice to Government - Constitutional

Program Size Indicator:

- number of requests for advice.

Measures of Effectiveness:

- percentage of requests for advice which are not met within 30 days;
- percentage of requests which are not met within one year;
- length of time to satisfy a request;
- number of law suits against government (constitutional).

Statute Preparation

Program Size Indicator:

- number of requests for legislation.

Measures of Effectiveness:

- percentage of requests which result in bills;
- length of time to draft legislation.

Statute Revision

Program Size Indicator:

- number of requests for legislation.

Measures of Effectiveness:

- percentage of requests which result in bills;
- length of time to revised legislation.

Judiciary

Supreme and County

Program Size Indicators:

- number of cases heard;
- total number of court appearances.

Measures of Effectiveness:

- average number of sitting hours per courtroom per day;
- percentage of total cases successfully appealed.

Provincial

Program Size Indicators:

- number of cases heard;
- total number of court appearances.

Measures of Effectiveness:

- average number of sitting hours per courtroom per day;
- percentage of total cases successfully appealed.

Coroners

Program Size Indicator:

- number of autopsies ordered.

Measures of Effectiveness:

- average number of sitting hours per courtroom per day;
- percentage of autopsies in which cause of death is undetermined;
- average length of time from death to autopsy completion;
- average length of time from autopsy ordered to report issuance.

Land Registry

Program Size Indicators:

- number of applications received;
- number of applications disposed of;
- number of searches;
- number of certificates of title issued;
- number of C. of E's issued;
- number of charges and releases processed;
- number of strata plans examined;
- number of plans (other than strata) examined.

Measures of Effectiveness:

- number of days - receipt to charge registration;
- number of days - receipt to title issuance;
- number of days - applicaiton to C. of E. issuance;
- number of discovered errors;
- number of complaints from public (including claims).

O.I.C. Patients Review Board

Program Size Indicators:

- number of patients in custody;
- number of reviews;
- number of releases.

Measures of Effectiveness:

- percentage of inmate population reviewed annually;
- percentage of releases readmitted;
- length of time from application to review.

Fire Marshall

Program Size Indicators:

- number of firemen;
- number of buildings inspected;
- number of plans examined.

Measures of Effectiveness:

- number of fires resulting in property loss per 1,000 population;
- dollar value of fire losses per 1,000 population;
- average time to process new plans;
- percentage of staff trained to acceptable standard;
- average length of time from new appointment to fully trained staff member.

Racing Commission

Program Size Indicator:

- number of licencees.

Measures of Effectiveness:

- number of commission hearings;
- number of licence suspensions;
- average length of time to process licence application.

Public Trustee

Program Size Indicators:

- number of accounts handled for deceased persons;
- average value of account;
- number of other accounts.

Measures of Effectiveness:

- average length of time to process estates of deceased persons;
- percentage of estimated value realized in estate dispositions;
- length of time to reimburse clients;
- number of complaints registered by client;
- percentage of accounts current (less than 30 days).

Law Reform Commission

Program Size Indicator:

- number of laws reviewed.

Measures of Effectiveness:

- number of law reforms proposed;
- percentage of proposals implemented.

Criminal Injuries Compensation Act

Program Size Indicator:

- number of crimes resulting in injuries.

Measures of Effectiveness:

- percentage of people suffering criminal damages who receive compensation;
- length of time from crime to payment;
- length of time from application to payment.

Computer and Consulting Charges

Program Size Indicators:

- number of new systems developed;
- number of programs involved;
- number of programs in production mode.

Measures of Effectiveness:

- percentage of mainframe downtime;
- percentage of production jobs not run on schedule;

- percentage of PERT milestones not met;
- number of complaints about service;
- percentage of utilization of C.P.U.

Building Occupancy Charges

Program Size Indicators:

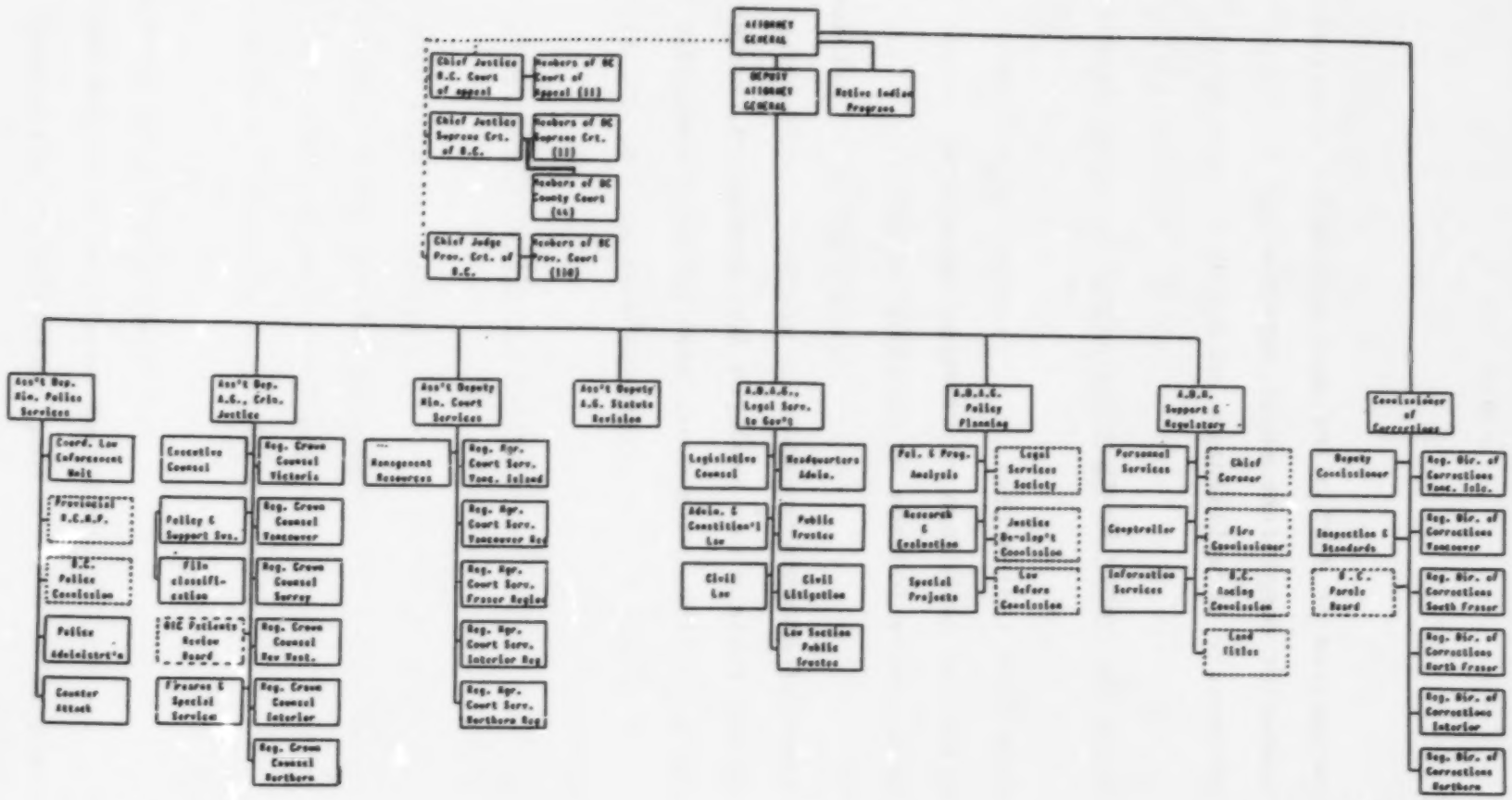
- number of buildings by category of space;
- gross squre footage by category of space.

Measures of Effectiveness:

- square footage per employee (or inmate) by category of space (office, warehouse, institution, camp, etc.).

MINISTRY OF ATTORNEY GENERAL

ORGANIZATION CHART



Jan 20/80

B.A.G.

APPENDIX B. SUMMARY OF METHODOLOGY

MINISTRY OF JUSTICE

PROVINCE OF QUEBEC

PROGRAM EVALUATION

FOR THE MINISTRY OF JUSTICE

Summary of methodology used

1981-01-12

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APPENDIX I : Systems analysis matrix

APPENDIX II : Table summarizing the schemas utilized for the identification of indicators.

PROGRAM EVALUATION FOR THE MINISTRY OF JUSTICE

PROVINCE OF QUEBEC

January 12, 1981

1. Summary of methodology Used

The primary reason for this sytems study is to re-assess what is done, and how to determine the optimum utilization of resources. This study is particularly useful to managers who must meet needs in periods of restriction (scarcity of resources).

2. Preliminary Conditions for the Study

- a willingness shown by managers to proceed with the study;
- capacity of managers to change their orientation, their organization, work procedures.
- availability of the information.

3. Model Used for the Evaluation

a) The study is done by comparing and relating the organization to;
   - other similar organizations
   - itself, that is, analyzing its evolution over the years.

b) The comparison focus is on four aspects of the organization and its functions;
   - the level of demand (community use);
   - the efficiency or productivity of the resources;
   - the quality of the services offered (standards);
   - the effectiveness of the system.

To allow comparisons, significant indicators must be identified in each case and their development over the years known.

c) The indicators will serve the following functions:

1- to compare the level of demand for service, where possible, with that experienced in other comparable organizations;

2- to understand the development of this demand;

3- to predict future demand;

4- to seek alternatives to, and if possible, modify this demand;

5- to adjust expectations of anticipated demand;

6- to determine how the efficiency and level of service can compare with other similar organizations, if possible;

7- to understand the development of productivity levels;

8- to forecast the probable level of productivity for the next years;

9- to seek better means of utilizing resources;

10- to determine productivity goals;

11- to know how the quality of service compares with other organizations, if possible;

12- to know the development of the level of quality of services offered;

13- to seek better ways of obtaining a better quality in the offered services;

14- to establish objectives of quality for these services;

15- to determine how the level of effectiveness compares with other similar organizations, if possible;

16- to understand the development of effectiveness;

17- to forecast the probable effectiveness levels for the next years;

18- to seek better ways of providing better effectiveness;

19- to re-assess existing objectives and redefine new objectiveness;

20- to establish objectives or standards of effectiveness.

4. The Four Steps in the Evaluation Process

First Step: Precision of evaluation

- the first step is to identify for each aspect considered (demand, efficiency, quality, effectiveness), the specific questions which need to be covered during the course of the study.

- The identification of each of these specific questions will utilize different methods. These are:

  . the analysis of existing documentation; annual reports, activity reports, management plans for the use of resources, internal and external studies, on the subject, etc.

  . interviews with management and personnel of the administrative units concerned;

  . interviews with personnel external to the units but having related duties and who must maintain contact with the units;

  . the analysis of activities, work process and administrative systems (utilizing the matrix from Nadler appendix i);

. direct observation by the analysts participating in the study.

Second Step: Identification of Indicators

- The second step is to identify for each aspect considered, the indicators or measurement units, which are representative and significant. These indicators will permit the evaluation of representative and future demands, the efficiency or productivity of current service levels, the quality of services offered and their effectiveness.

  The investigation of indicators is made through analyzing production systems. More precisely, for each system:

. information regarding input and output;
. processing performed.

To identify significant indicators, the analyst utilizes usually the schemas found in appendix 2.

Third Step - Seeking Alternatives

- This step involves looking at alternative ways of providing functions. These alternatives should be considered from a perspective of ensuring

the best use of resources which will permit choices to be made regarding resource use; either accomplishing the same with less resource use, or accomplishing more with the same resources. This analysis of alternatives is made through specific studies. These studies apply to well identified aspects of the organization and its functions. These studies are coordinated by the work group described in the next section, but may also be performed by the following units:

- the administrative unit evaluated;
- the organization and Methods services from Quebec or Montreal;
- the branch of budget;
- the branch of materiel resources;
- the branch of information;
- the branch of personnel; and other external resources (contract firms or universities).

Fourth Step: Recommendations

- The fourth step in the study consists of presenting recommendations in order to identify actions which would allow an improvement in effectiveness; the stablishment of a schedule for the proposed studies; or the implementation of systems. The recommendations should also include the collection and compilation of indicators necessary for continued evluation. The recommendations are contained in the main plan of development.

5. EVALUATION AT THE MINISTRY OF JUSTICE

Programmes considered:

All programmes of the ministry.

Procedure for the Study

For each programme, the study group is comprised of the following representatives:

- from the division of analysis and organization (which is responsible for the project);
- from the administrative unit responsible for the programme being evaluated;
- from Treasury Board

Each study gives the following result:

. a three-year plan of development updated every year at the time of the budget preparation (management resource plan);

. a mechanism of ongoing evaluation that will enable the Management and Evaluation Statistics division to produce regular statistical reports for each program evaluated. The statistical reports will focus on:

- demand;
- efficiency;
- quality of service;
- effectiveness.

SYSTEMS ANALYSIS MATRIX*
Appendix 1

SYSTEM ELEMENTS	Needs (Physical)	Efficiency (Rate)	Quality (Control)	Effectiveness (Development)
FUNCTION				
INPUTS				
OUTPUTS				
PROCESS				
ENVIRONMENT				
PHYSICAL SETTING				
INFORMATION SETTING				
HUMAN FACTORS				

A system can be defined whatever its type or size, as a group of precise and organized conditions, for the following elements: function, input, output, process, environment, physical characteristics, informational characteristics and human factors, expressed in their physical dimensions by rate, inspection and development. This definition has the advantage of being universally applicable and understandable by everyone; it is adaptable for any system without restriction.

---

* Work Design (Gerald Nadler)

ELEMENTS COMMON TO ANY SYSTEM

The elements and dimensions of the system matrix are defined as follows:

1. Function:

   It is the mission, the major objective of the system. This definition applies more to the results expected than other defintions, such as public service, employment, position duties, job, etc.

2. Inputs

   All of the resources, physical, informational, human, which are involved during the process of producing output.

3. Outputs

   The items or services which result from the processing of inputs. The outputs express how the function is realized.

4. Process:

   The processing, the series of operation necessary to transform inputs into outputs. "Process" will be the term used to identify this conversion.

5. Environment:

Physical and sociological factors among which all the other elements of the system are developed.

6. Physical Setting

Physical resources which act as agents to help converting inputs into outputs without becoming part of outputs.

7. Informational Setting:

Data pertaining to the system elements, which facilitate the conversion process without becoming part of outputs.

8. Human factors

Human resources who, as agents, are responsible for the functioning of equipment in a given environment and process to convert inputs into outputs in order to achieve a function.

If human factors are listed as a last item, let us not conclude that it is less important. Rather, the other elements must be defined or established before the human factors can be considered.

DIMENSIONS OF THE ELEMENTS OF A SYSTEM

The physical dimension concerns the size, the composition, the exterior, the mode or terms of existence, the strength, the propriety or other limitations of the element. More than one physical dimension per element may be necessary. The physical dimension must exist before specifying any one of the three other dimensions.

The rate dimension, measures the element in terms of a number of units by units of time. The rate relates to the frequency and intensity of physical dimensions in time.

The control dimension relates to the way one or the other dimension may be:

a) measured during the operation of the system;
b) compared, with the help of former information (feedback) to the desired specifications and (approved) limits;
c) corrected, if possible to respect these requirements.

The development dimension predicts the moment when the physical, rate and control dimensions reach a given situation.

SUMMARY OF SCHEMAS USED IN THE IDENTIFICATION OF INDICATORS

Appendix 2

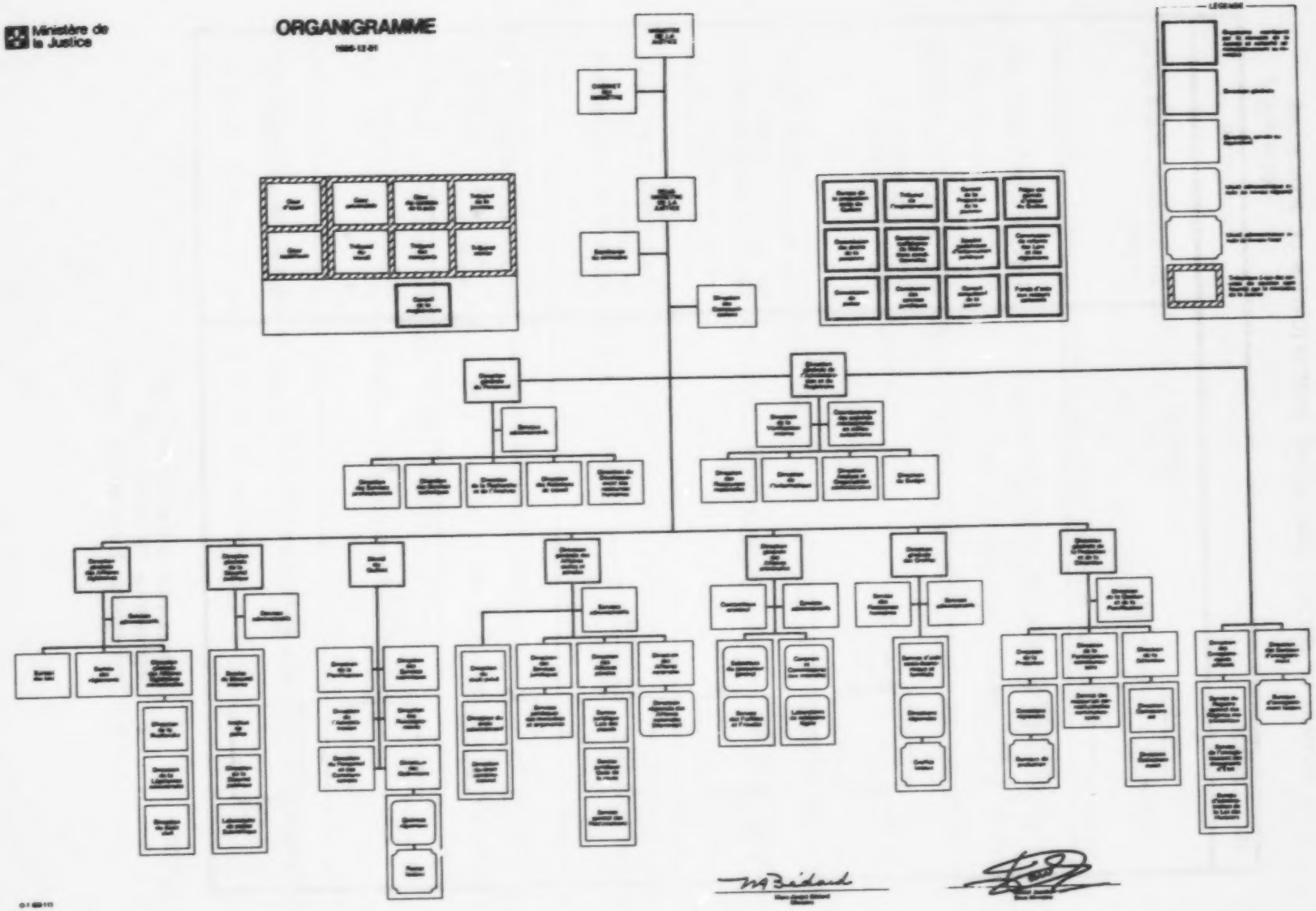
NO. SCHEMAS	INDICATORS
1 E1 → T 1 ← S1	Information input or output
2 E1 → T1,T2 Tn ← S1,S2...Sn (in series)	Information input or output.
3 En → T1 ← Sn	Total information input or output
4 En → Tn ← Sn Either	One information input or output. Total balance of information input or output.
5 E1 → Tn ← Sn	One information input or output. Total balance of information output.
6 En → Tn ← S1	One information input or output. Total balance of information input.
7 E1 → Tn ← Sn	Information input
8 En → ← S1	Information output

LEGEND: E Represents Information input.
T Represents "Processings"
S Represents Information output.

Ministère de la Justice

ORGANIGRAMME

1986-12-01



APPENDIX C. SUMMARY OF COURT SERVICES EVALUATION

MINISTRY OF JUSTICE

PROVINCE OF QUEBEC

SUMMARY OF

THE EVALUATION OF COURT SERVICES

November 1980

NOTICE TO THE READER

Program evaluation is a tool which helps the manager to achieve a greater effectiveness and a better utilization of his resources. Evaluation is therefore important in periods of restriction when needs must be satisfied.

Evaluation has been considered as a continual process. In that respect, the present document must not be considered as a final report, but rather an interim report, and should be read as such.

Some indicators must be validated, others developed. The projections must be verified and adjusted in terms of the experience that will take place in future years. Some analyses that should be done have not been fully realized because of the time limits we had set. The results of specific analyses will have to be confirmed.

The development plan contains the description of the principal activities which must be accomplished over the next few years. An update of this plan will help in making the necessary periodic amendments.

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1. MANDATE AND OUTLINE OF THE STUDY

The present evaluation report of Court Services was requested by the Treasury Board Secretariate from the Minister of Justice in August 1979.

This request had the following goals: identify the problems of Court Services and obtain a complete description of its operation and services.

To respond to this demand, the Minister of Justice appointed a committee responsible for the completion of the study, and a work committee responsible for the compilation and the analysis of data. This study has been completed jointly by the Branch of Analysis and Administrative Organization of the Ministry and by Court Services.

While responding to the mandate of the Treasury Board, we have developed a system which will permit a continual evaluation of activities in Court Services.

This system is based on four elements, which are analysed in each of the sectors identified below:

- the demand for services,
- the efficiency of resources,
- the quality of the services offered,
- the effectiveness of the sector.

2. DESCRIPTION OF COURT SERVICES

The task of Court Services is to assure the administration and support of the judicial mechanism. The main objective of the Branch is to give everyone the assurance of equitable justice without delay and to minimize costs; Court Serivices, provides administrative support to the operation of tribunals while bridging the gap between the judiciary and the citizen; and makes sure that procedures are well administered; and that archives and other judicial records are properly stored. Courts Services also provides administrative support to judges. It carries on also surveillance on justice officers in the exercise of judicial powers which are conferred to them by law and regulations. In 1979, in addition to that principal role, the Branch was given the mandate to coordinate the activities of social and familial aid for the Ministry. In 1980, it was given the mandate to collect maintenance payments.

As part of its mandate, Court Services is responsible for the coordination and improvement of judicial, parajudicial, and administrative activities of all the different services of courts for the province of Quebec, as well as some additional services.

The judicial or administrative tribunals supported by Court Services are:

- the Court of Appeal,
- the Superior Court,
- the Provincial Court (mainly rural - small claims and criminal),
- the Provincial Court, small claims division (specialized - in large urban centres),
- the Criminal Court (specialized - in large urban centres only),
- the Youth Tribunal,
- the Work Tribunal, (quasi-judicial bargaining and arbitration)
- the Transport Tribunal,
- the Mining Claims Tribunal.

The following services are neither part of support to tribunals nor of social-familial aid:

- civil marriages,
- maintenance of registry archives, responsibility for archives from deceased notaries and land-surveyors, and storage of judicial records,
- declarations of trade names (Registrar of Companies),
- administration of distribution centres.

Court Services maintains the following administrative units: Section of Support Services, Section of Professional Services, Section of Socio-economic and Family Aid, and eleven regional directors responsible

for the courts which were created by the reorganization of the 34 judicial districts. There are 101 service delivery points (there may be more than one per location).

The 1979/80 authorized positions for Court Services were established at 2,671, 2,437 permanent and 234 auxiliary. The number of judges to which Court Services must provide administrative support was 355 in 1979 (judges assigned to organizations excluded). As for the financial resources, expenses for the year 1979/80 have been $47,300,000.00. Revenues generated by Court Services for the same year have been $19,900,000.00.

It should be noted that in 1970/71, the proportion of government budget consumed by Court Services represented 0.374%, and in 1979/80 it was 0.317%. Also, in comparison with the Ministry of Justice, Court Services accounted for 14.33% of the Ministry budget in 1970/71. In 1979/80, this proportion was 11.43%. Concerning manpower, the total number of regular authorized positions varied from 1,977 in 1971, 2,425 in 1977 to 2,414 in 1978 and 2,433 in 1979.

3. METHODOLOGY OF ANALYSIS AND EVALUATION

The logical process followed in the evaluation of Court Services consisted of:

- defining the indicators of demand, efficiency, quality and effectiveness;

- identifying the potential factors which may have influenced the development of indicators in the past;
- establishing a mathematical model which permits the relation of past growth rates to certain potential factors;
- applying this model to forecast the future resources needed.

Secondly, we examine different possibilities to influence the development of this model in terms of demand for services, efficiency of resources, quality of service offered and effectiveness of the sector.

4. SUBDIVISION OF COURT SERVICES

To proceed with the analysis, we have subdivided Court Services into the following sectors:

- civil and criminal courts, including opening and follow-up of civil, criminal and statutory cases but excluding small claims and Youth Tribunal (1,339 positions);

- small claims division of the Provincial Court (194 positions);

- Youth Tribunal (133 positions);

- support to court hearings including activities court room and directly related activities (622 positions);

- support to magistrates, more particularly secretaries to the judges and the Commissionaires (591 positions);

- trade names (companies) (16 positions).

The following sectors have not been subjected to analysis because of their specificity and their concentration:

- the Court of Appeal (25 positions);
- the administrative tribunals (26 positions);
- the headquarters of Court Services (39 positions).

The total number of positions studied amounts to 2,881 which means that certain of these positions have been analysed in more than one sector. For example, some court clerks or commissionaires, or some positions in the trade names sector which have been analysed in the civil or criminal court sector, as well as support to hearings, support to the judges, or trade names. In addition, some auxiliary positions have been integrated in the analysis in the support to hearing section (131.4) and support to judges (119.3).

It must be noted that the results of the study by sector allow the prediction of resources needed and that, for Court Services, the relation between the actual and necessary staff can be calculated as follows:

- civil and criminal courts:	1,339 permanent positions including 174 court clerks positions
- small claims:	194 permanent positions
- Youth Tribunal:	133 permanent positions
- support to court hearing:	486 permanent positions including 174 court clerks positions and 113 commissionaire positions. 131 auxiliary positions are added to the permanent positions.
- support magistrates:	461 positions including 113 commissionaire positions. 130 auxiliary positions are added to the permanent positions.

5. RESULTS OF THE EVALUATION

Court Services, being at the center of the justice system, has to respond to a demand for services over which, because of its role, has little control.

5.1 Projections of Demand

The most significant factors which allow explanations of the variation of demand are the size of the population and the number of judges. The close correlation which exists between the size of the population and the number of cases opened indicates there will be a continual increase in demand over the next years, as the size of the population of the province of Quebec should increase more rapidly during the 80's than at the end of the 70's, according to the Bureau of Statistics of Quebec. Also, concerning the sectors whose evolution is related to the number of judges, the last years have shown a constant increase in the number of judges, which should continue for the short term.

The following table illustrates the evolution of the number of cases to open, by sector, based on the population for 1980, 1981 and 1982.

FORECAST OF THE NUMBER OF CASES TO OPEN, BY SECTOR, FOR 1980, 1981 AND 1982						
Type of case	Actual Demand			Projection		
	1977	1978	1979	1980	1981	1982
Civil	188,200	192,340	200,553	209,800	214,200	224,900
Criminal	90,470	88,126	94,553	94,600	95,000	95,300
Statutory	148,460	149,633	129,143[1]	141,300	142,000	142,700
Youth Court	45,049	40,054[2]	12,285[2]	23,366[2]	28,306[2]	33,775[2]
TOTAL	568,227	560,604	519,990	553,581	557,561	579,371
% variation over last year		-1.34%	-7.24%	6.46%	0.72%	3.91%

(1) This number may have been affected by the labor dispute in 1979.

(2) The introduction of the Youth Protection law has brought fluctuations in 1978 and 1979. The growth anticipated is mostly caused by the increase in jurisdiction of this Court.

As for the demand related to the number of judges, the variation anticipated appears in the following table.

FORECAST OF THE NUMBER OF HOURS OF HEARING BASED ON THE NUMBER OF JUDGES AND HOURS OF HEARING BY JUDGE, BY YEAR						
Type of case	Actual Demand			Projection		
	1977	1978	1979	1980	1981	1982
Number of judges (+2.55% per year)	340	344	355	364	373	383
Hours of court hearing (+3% per year)			366	377	388	400
Hours of court hearing			129,753	137,228	144,724	152,200
Variation in relation with last year				5.76%	5.46%	5.86%

5.2 Efficiency or productivity

The productivity of Court Services is difficult to evaluate because the management information system allows very few direct relations between resources used in production and activities accomplished or output. In some sectors, more particularly support to magistrates, it is impossible to comment on efficiency, as the data relative to the production of outputs are not compiled or validated. In other sectors, specially support to court

hearing, it has been possible to calculate efficiency for only one year. It has not been possible to perceive the trends, although the indicators help to formulate a first judgement on productivity. Finally, in the sectors for which data for more than one year existed, the analysis has permitted a statement on the evolution of productivity as well as on the comparison between regions.

In spite of the decreased demand observed between 1977 and 1979, one notes the growth of productivity in some sectors. Using the hypothesis that the demand will occur as anticipated and that the strength remains at the 1979 level, the following table indicates the variation in efficiency necessary to proces the cases.

VARIATION OF EFFICIENCY WITH MANPOWER AT 1979 LEVEL

Type of case	Actual Demand			Projection		
	1977	1978	1979	1980	1981	1982
Civil and criminal courts	709	716	736	767	778	804
% variation over last year		0.99%	2.79%	4.21%	1.43%	3.34%
Youth Court			115	175	213	254
% variation over last year				52.17%	21.71%	19.25%

In the case where the efficiency would remain at the 1979 level, it would be necessary to anticipate 170 additional positions, that is an increase of 7.25% to the actual strength to meet the level of demand in 1980, as evaluated in terms of the parameters of population and judges. However, we will see that efficiency can be improved and it seems that Court Services has the authority to make the necessary modifications.

5.3 Quality and Effectiveness

The quality and effectiveness of Court Services, excluding the small claims sector, have not brought many comments because of the absence of validated data. We think it is important to quantify these aspects and, although the availability of data does not constitute as such an improvement of the system, it will permit a better prediction on the impact of modifications upon Court Services.

6. ANALYSIS OF OPTIONS

6.1 Possibilities of Influencing the Demand

As we have seen from the above comments, Court Services can only act indirectly in taking measures that effect the evolution of demand. However, interventions at other levels can prove significant.

The principal way to reduce the demand would be to decriminalize some litigations. The Youth Protection Law (Law 24) had also that objective and has brought a decrease of the number of cases opened by nearly 25,000 between 1978 and 1979, the year of its implementation. The important variation of demand at the beginning of 1980 (an increase of 65% over 1979) indicates that greater attention should be paid to the evolution of the Youth Tribunal and, hence, to the allocation of the resources necessary to process these cases. However, these efforts of decriminalization will require political decisions and a unification of the efforts of the parties concerned, which is beyond the decision-making level of Court Services.

A second option consists of an adjustment to the tariff system, which could perhaps decelerate the rate of growth. A project addressing this topic has been submitted to the Executive Council by the Ministry of Justice. However, we tend to believe that the first impact of this decision would increase revenues generated by the judicial system rather than reduce tangibly the demand for services.

A third option consists of reorganizing the jurisdictions of the tribunals. Among other things, the increase of the maximum amount being processed by the small claims division of the Provincial Court, from $500 to $1,000, could increase the demand by more than 7,000.

A last option consists of eliminating some activities performed by Court Services. In effect, the elimination of some laws, more particularly those concerning company registration would permit a reduction of the demand for services and, thus, achieve resource savings.

On the other hand, other activities have traditionally been the responsibility of Court Services because of its decentralization. Some of these activities, which are not closely related to the judicial process, could be performed by other branches or organizations in the government, for example, civil marriages, company registrations, archives of deceased notaries and land-surveyors. These responsibilities could be removed from Court Services and assumed by other organizations, maybe more efficiently. The impact of this reorganization has not been evaluated, but it seems that the demand would be the same, whatever organization is responsible for them.

6.2 Possibilities of Influencing the Efficiency

Several avenues have been considered in view of improving the efficiency of Court Services. Some of these are sufficiently precise that we can calculate probable impacts while some others are given only for possible exploration. It is in respect to these that Court Services has the greatest authority and can take, in some sectors, its own administrative decisions.

At the level of civil and criminal courts, modification of the allocation of resources by region based on the average productivity, obtained in 1979, would permit the absorption of the increase of demand without increasing human resources, and would represent a virtual economy of 56 positions for 1980.

In the sector of support to court hearings, a more rational utilization of personnel attached to court hearings would permit the absorption of the anticipated increase in work. A normalization of the mandatory appearances, by jurisdiction, would result in valuable economies but which we cannot precisely evaluate. It must be pointed out that this normalization of support to hearings, as well as support to the magistrates, requires the close cooperation of the judges. Furthermore, a modification of court recordings would allow substantial economies to be realized. We must keep in mind that such a modification implies consultations with clients as well as legislative and administrative adjustments. The potential economies of such a modification (48 positions and $1,700,000.00) should encourage an analysis of the benefits resulting from such a change.

Finally, the implementation of an information system in courts which have more than 5,000 new cases opened annually should facilitate the absorption of the growth in demand of future years by increasing the staff productivity. Moreover, this implies a standardization in the processing of

cases, which will permit better quality control. A trial period of a year, in addition of an investment of $1,175,000, will be needed for the implementation of that program. Once operational, the costs will be almost equal to the benefits gained, although the strength can be reduced by 77 positions. It is desirable that the standardization step of the program be implemented as soon as possible to facilitate the future automation.

In addition to a standardization of processing, better quality and increased efficiency, an automated information system would provide an opportunity to revise the organization and work procedures for each court, as well as facilitate decision-making relative to the territorial reorganization of service delivery in terms of efficiency and better quality.

7. SUMMARY AND RECOMMENDATIONS

The variation in demand for Court Services can be explained by variations in the population and by the number of judges. As these two factors have always reflected a tendency to increase, we must anticipate an increase in the demand for services.

To fulfil this demand, one must improve either the efficiency or increase resources. If efficiency was to remain constant, it would be necessary to add 170 positions in 1980, 83 positions in 1981 and 146 positions in 1982. If the strength was held constant, the increase in

efficiency in the short term could be attained by a reallocation of resources, in order to attain, a a minimum, the average efficiency of the previous year, excluding the Youth Tribunal which represents a special case.

Some options would permit the reduction of resources while reducing the demand for services, for example the decriminalization of some litigations, an adjustment of the tariff schedule, changes to the extent of jurisdiction and the elimination of some laws.

Other options are more likely to increase efficiency, quality and effectiveness of services. Modifications to the organization and to the operational methods as well as automation would permit a greater efficiency while economizing resources.

However, Court Services will not be able to realize these changes without the agreement of its partners which are also an integral part of the judicial system.

The following recommendations indicate the possibilities of action in the short and medium term, in view of an increase of efficiency allowing first the absorption of surplus demands and, thereafter, the realizaion of some economies.

Short term

Recommendation #1

That a study of the methods of operation of the civil and criminal courts be undertaken to modify the actual distribution of manpower in order to permit each region to achieve at least the provincial average efficiency of the previous year. An increase in productivity should absorb the additional workload for each year until 1982.

Recommendation #2

That the results of the study completed for the small claims division be gradually implemented to achieve the maximum effectiveness of resource use indicated, without being forced to curtail the quality, or reduce accessibility.

Recommendation # 3

That utilization of the support personnel necessary to the court hearings be better planned in order to absorb an additional workload of 5.76% in 1980, 5.46% in 1981 and 5.86% in 1982. Thus, the rate of personnel utilization in court hearings would change from 44.3% in 1979 to

54.3% in 1982. It should be noted that these staff have other duties in court and that the increased time spent in court hearings should not influence the overall efficiency of the system.

Recommendation # 4

That a quantitative and qualitative analysis be undertaken of the workload of legal secretaries and stenographers in order to, more particularly, increase their productivity in terms of transcriptions, and to reduce possible delays. The potential savings, for the legal secretaries only, amount to at least $360,000, including 18 positions.

Recommendation # 5

That the evolution of the Youth Tribunal be followed monthly and that the positions necessary to fulfil the demand be granted on the basis of the suggested rate of productivity growth, that is 136 cases/employee in 1980, 157 in 1981 and 177 in 1982, unless a further analysis of the workload recommend changes to these data.

Medium Term

Recommendation # 6

That the tariff schedule be applied to all users and revised to

reflect inflation and production costs. These adjustments, without affecting very much the evolution of the demand for services, would improve the ratio of revenues/costs.

Recommendation # 7

That the possibility of increasing the maximum amount of small claims from $500 to $1,000 be analysed. This action could result in a reduction of several positions in civil and criminal courts and an addition of positions to small claims.

Recommendation # 8

That a study of staff needs be undertaken, in cooperation with the magistrates, for the sector of support to magistrates. This should permit the allocation of judge secretaries according to the needs of the judges and the jurisdictions, rather than in terms of the number of judges. This new attitude could facilitate an increase in productivity of personnel who seem to be under-utilized.

Recommendation # 9

That the efficacy of the law governing the declaration of trade names be improved. In the case where opinion favors its abrogation, a saving of $320,000, including 16 positions, could be achieved, while creating an equal loss of revenues. Otherwise, its transfer to the Ministry of

Consumers, Cooperatives and Financial Institutions should be considered and the potential economies evaluated.

Recommendation # 10

That the study relative to the transcription of debates be completed and a strategy of implementation suggested. Recording of debates on magnetic tape would result in a saving of 48 positions and of more than $1,700,000.00 in Montreal only.

Recommendation # 11

That an information plan be developed to benefit courts whose annual volume is over 5,000 cases, Implementation of an information system, at an annual cost of $1,175,000, should be compensated by annual economies averaging $1,150,000 and would provide a better quality of services, standardized processing, as well as a greater possibility of absorbing increased workloads over the next years. A trial period of almost a year must be expected in each court.

Continual Evaluation

Recommendation # 12

That the data necessary to evluate periodically the efficiency, quality and effectiveness of the courts, more particularly those data

related to the indicators utilized or suggsted, if considered, should be compiled and integrated within the management information system of Court Services.

Recommendation # 13

That an analysis of the work for each jurisdiction be undertaken in order to identify some productivity targets which will serve to evaluate the relative effectiveness of the regions and the Branch.

Recommendation # 14

That a study comparing the province of Quebec with respect to other provinces, particularly Ontario, be undertaken to compare levels of service and performance.

Recommendation # 15

That the development plan of Court Services be implemented and that any follow-up be assumed by the Administration and Registry Branch.

APPENDIX D. KEY INDICATOR FORMAT

MODELS

JUSTICE SYSTEM KEY INDICATOR MANAGEMENT REPORT

COMPONENT POLICE	MEASURE	THIS MONTH	RATE/ 100,000 POP.	% CHANGE YEAR AGO	% CHANGE Y.T.D. TREND	PROGRESS TO DATE A M J J A S O N D J F M	SCALE
INPUT	NUMBER OF REPORTED INCIDENTS						
	TOTAL OFFENCES FOUNDED						
	CRIMINAL CODE INDEX						
	CRIMINAL CODE MOTOR VEHICLE						
	TOTAL CRIMINAL CODE						
	PROVINCIAL MOTOR VEHICLE						
OUTPUT	CLEARANCE RATE (FOUNDED)						
	-BY CHARGE -OTHERWISE						
	C.C. INDEX CLEARANCE RATE						
	- BY CHARGE - OTHERWISE						
PROCESS	CASE BURDEN ACTUAL INCIDENTS/OFF'R						
	R.C.M.P.						
	MUNICIPAL						
- VARIANCE	ACTUAL VS. ESTIMATED						
- OVERTIME							
- STAFF	RATIO OF POPULATION TO OFFICER					R.C.M.P. / MUNICIPAL	

JUSTICE SYSTEM KEY INDICATOR MANAGEMENT REPORT

COMPONENT COURTS	MEASURE	THIS MONTH	RATE/ 100,000 POP.	% CHANGE YEAR AGO	% CHANGE Y.T.D. TREND	PROGRESS TO DATE A M J J A S O N D J F M	SCALE
INPUT	NUMBER OF NEW CASES						
OUTPUT	NUMBER OF COMPLETED CASES						
	CONVICTIONS						
	DISCHARGED/ ACQUITTED						
	REMOVED						
	HIGHER COURT ELECTION						
	NUMBER OF WARRANTS ISSUED						
PROCESS	TOTAL NUMBER OF CASES						
	AVERAGE DELAY ACTIVE CASES						
	PERCENT GREATER THAN 180 DAYS						
VARIANCE	CROWN COUNSEL STAFF						
	AD HOC COUNSEL						
	COURT SERVICES						
	PROVINCIAL JUDICIARY						
OVERTIME	COURT SERVICES						
STAFF	ESTABLISHMENT RATIO	COURT SERV. / CROWN CNSL.					

JUSTICE SYSTEM KEY INDICATOR MANAGEMENT REPORT

COMPONENT CORRECTIONS - COMMUNITY	MEASURE	THIS MONTH	RATE/ 100,000 POP.	% CHANGE YEAR AGO	% CHANGE Y.T.D. TREND	PROGRESS TO DATE A M J J A S O N D J F M	SCALE
INPUT	TOTAL NUMBER OF ADMISSIONS						
	ADULT						
	JUVENILE						
	PAROLE						
OUTPUT	TOTAL COMPLETED CASES						
	ADULT						
	JUVENILE						
	PAROLE						
PROCESS	ADULT CASELOAD						
	JUVENILE CASE-LOAD						
	PAROLE CASELOAD						
	FAMILY CASELOAD						
BUDGET	ACTUAL VS. ESTIMATED						
	COST PER SUPERVISION DAY						
STAFF	ESTABLISHMENT RATIO						
OVERTIME							

JUSTICE SYSTEM KEY INDICATOR MANAGEMENT REPORT

COMPONENT CORRECTIONS INSTITUTIONS	MEASURE	THIS MONTH	RATE/ 100,000 POP.	% CHANGE YEAR AGO	% CHANGE Y.T.D. TREND	PROGRESS TO DATE A	M	J	J	A	S	O	N	D	J	F	M	SCALE
INPUT	TOTAL ADMISSIONS																	
	SENTENCED																	
	REMAND																	
	RETURN TO JAIL RATE																	
OUTPUT	TOTAL DISCHARGES																	
	SENTENCED																	
	REMAND																	
PROCESS	TOTAL COUNT																	
	SENTENCED																	
	REMAND																	
	UTILIZATION SENTENCED																	
	UTILIZATION REMAND																	
	ESCAPES																	
BUDGET	ACTUAL VS. ESTIMATED																	
	COST PER INMATE DAY																	
STAFF	STAFF/INMATE RATIO																	

JUSTICE SYSTEM KEY INDICATOR MANAGEMENT REPORT

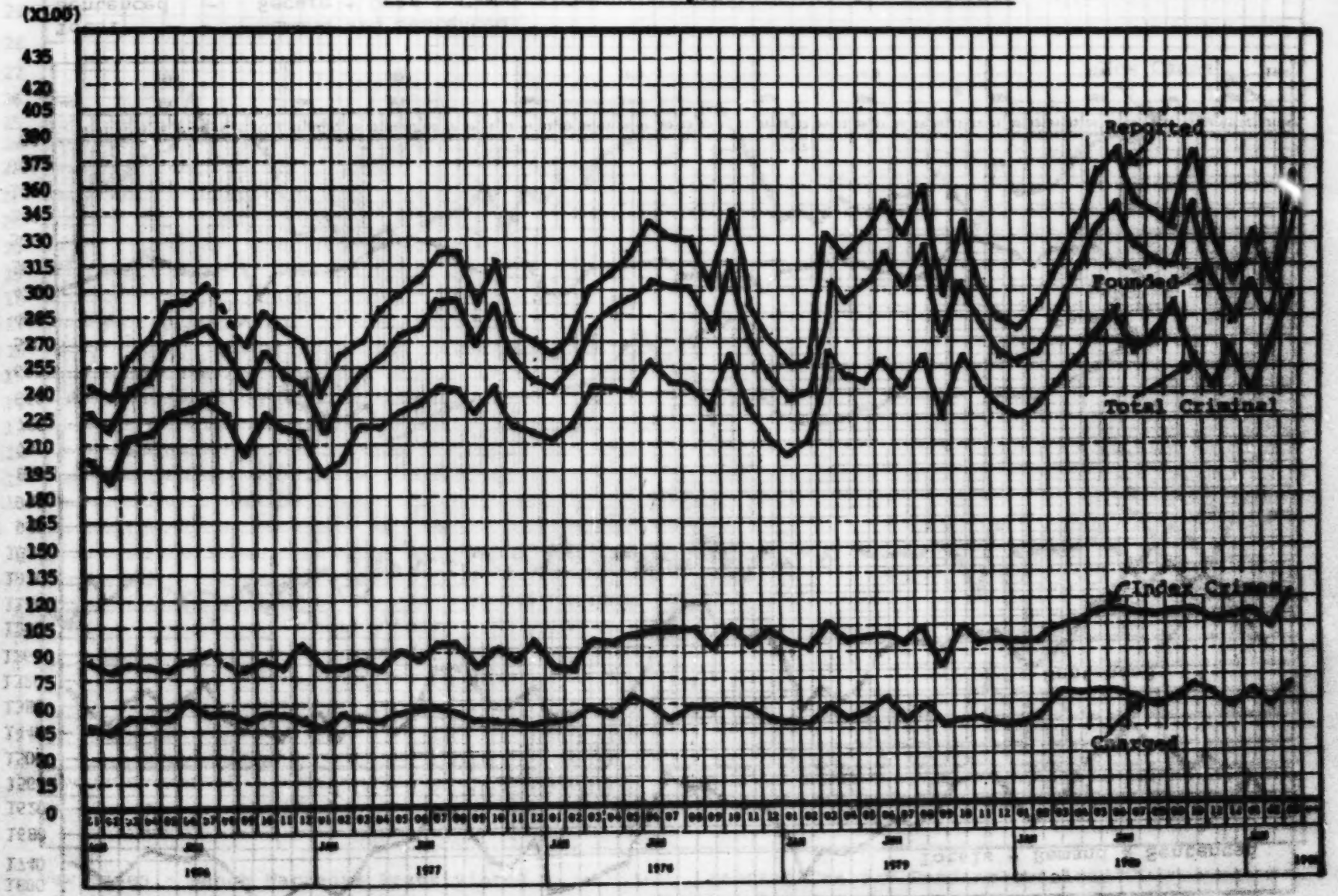
COMPONENT PAROLE BOARD	MEASURE	THIS MONTH	RATE/ 100,000 POP.	% CHANGE YEAR AGO	% CHANGE Y.T.D. TREND	PROGRESS TO DATE A M J J A S O N D J F M	SCALE
INPUT	PAROLE OPPORTUNITY RATE						
	NUMBER OF APPLICATIONS						
OUTPUT	NUMBER OF DECISIONS						
	DECISION GRANT RATE						
	DECISION REVOKE RATE						
	DECISION SUSPEND RATE						
PROCESS	NUMBER OF HEARINGS HELD						
	TOTAL SITTING DAYS						
	PAROLE GRANT RATE						
	PAROLE REVOKE RATE						
BUDGET	COST PER HEARING						
VARIANCE	ACTUAL VS. ESTIMATED						

PERTINENT SYSTEM KEY INDICATOR MANAGEMENT REPORT

COMPONENT	MEASURE	DATE	% CHANGE	PROGRESS TO DATE	SCALE
PRODUCT GROUP		MONTH	100,000 YEAR AGO	Y.T.D. TREND	

APPENDIX E. Examples of graphs used during Project Four - Actuals and Forecasts.

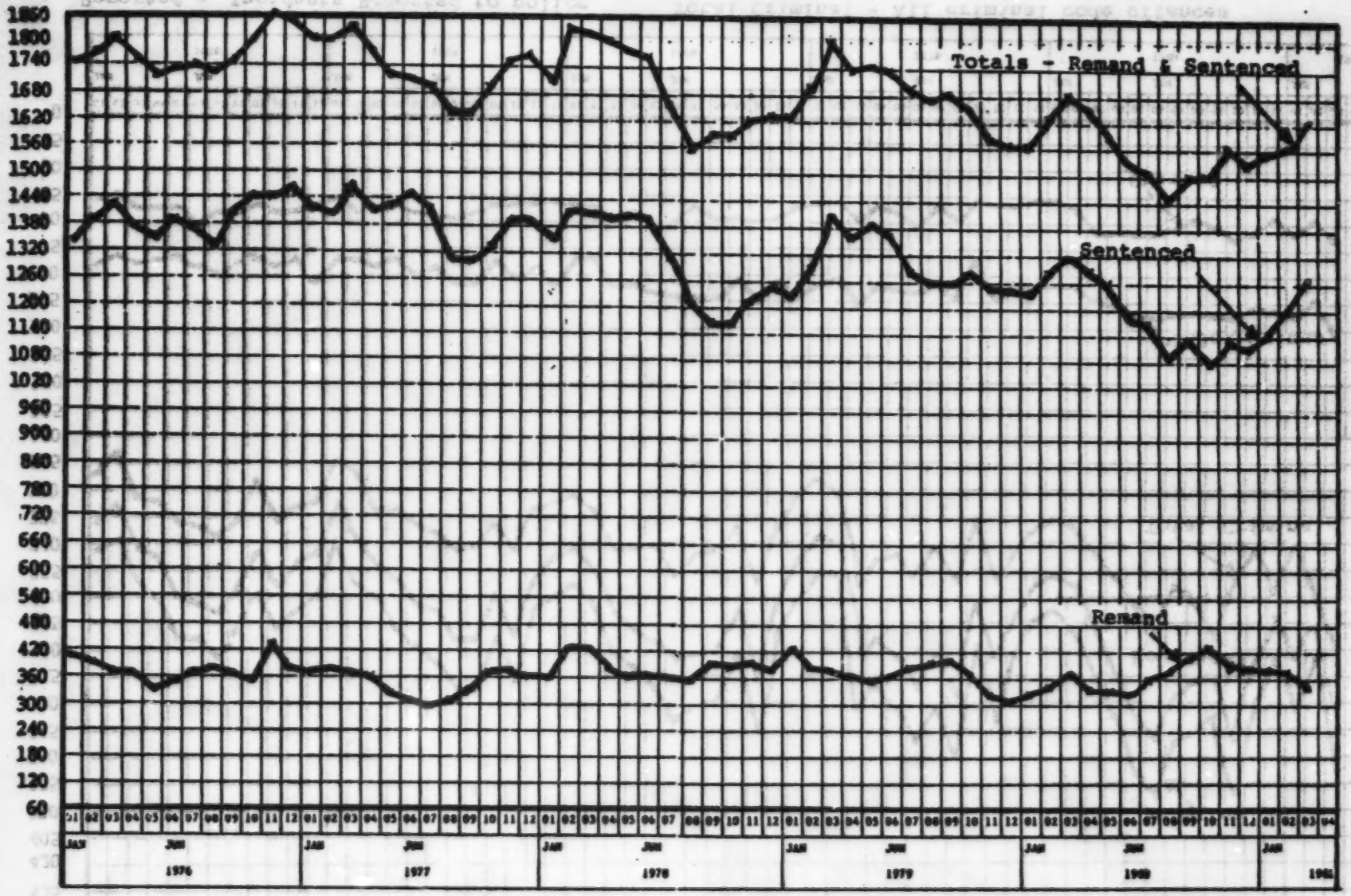
Police Statistics - Reported & Founded Incidents



Reported - Incidents Reported to police
Founded - Incidents found to have basis for charge

Total Criminal - All criminal code offences
Index - Major crimes.
Charged - Persons Charged

CORRECTIONS - Total Institutional Population



Total - Remand and Sentenced
Sentenced - Secure + Open + Camps + Community Correctional Centers + Community Residential Centers
Remand - Awaiting Trial

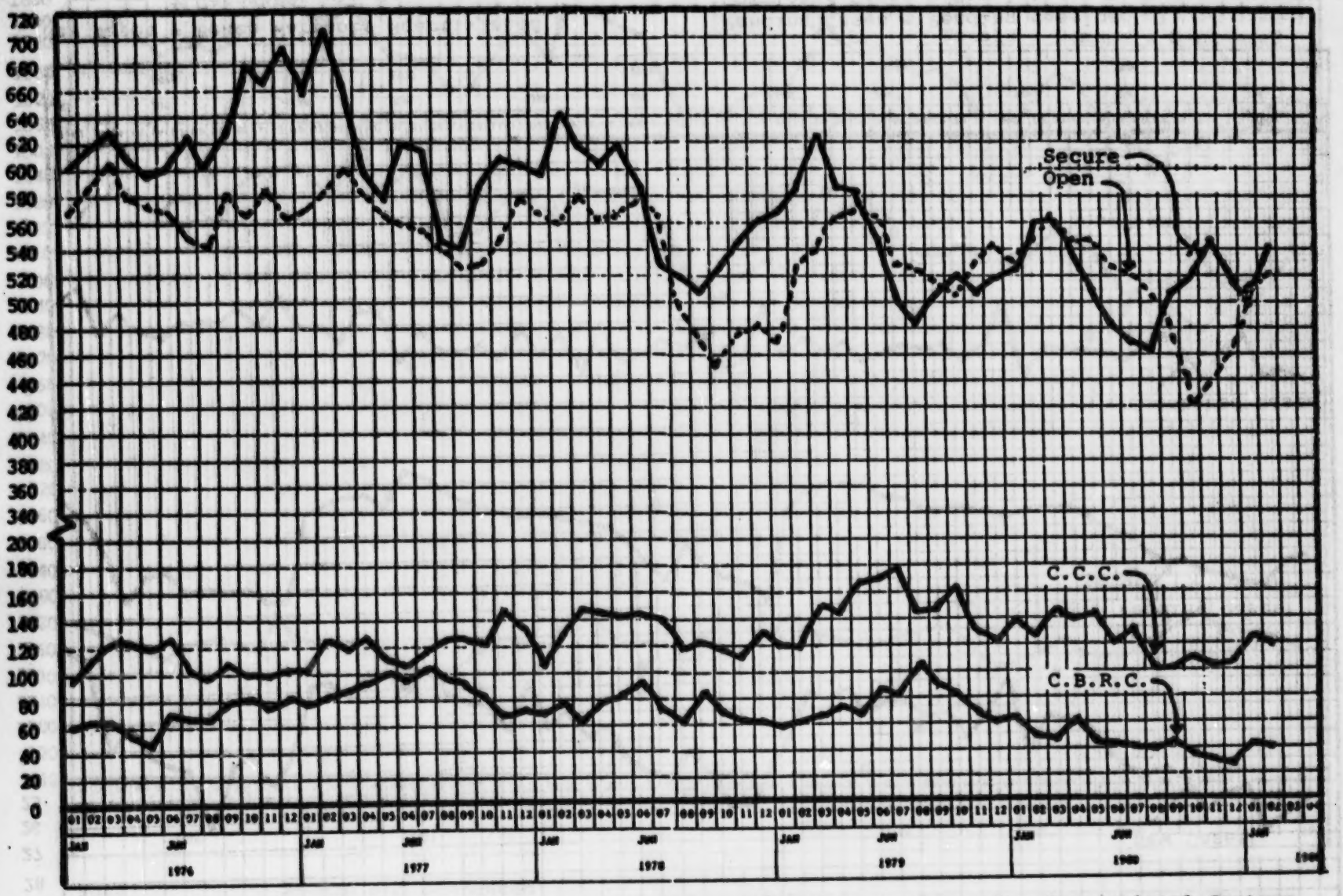
Court Data : New, Pending, and Completed Cases

Source: Court List Information System (C.L.I.S.)

New Cases = Bench Warrants Reactiviated
+ Cases Brought Forward
+ New Cases

Pending Cases = Pending caseload
Completed Cases = Completed + Bench Warrants Issue

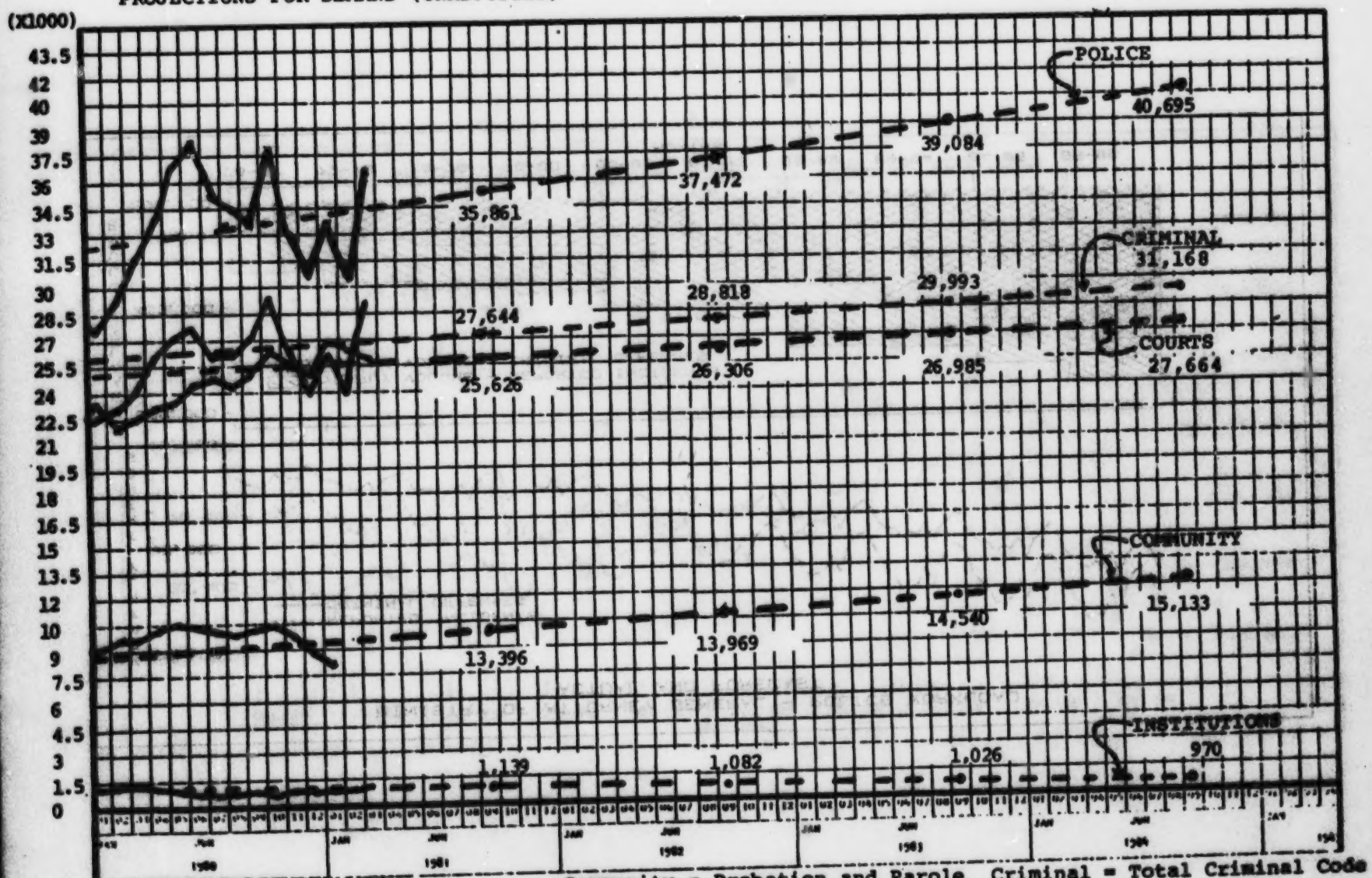
CORRECTIONS - Sentenced Institutional Population



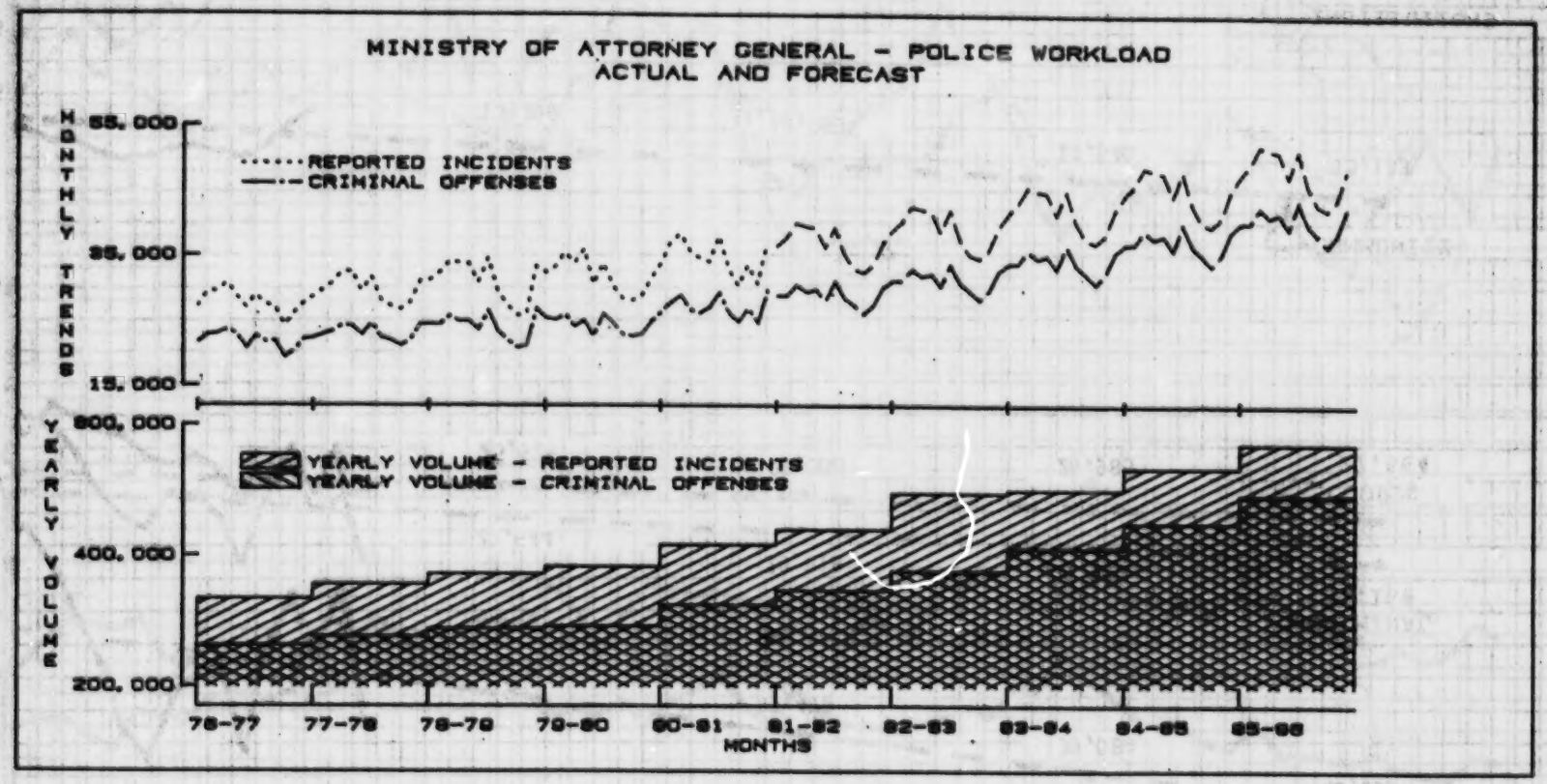
Secure - Maximum Security
Open - Medium Security (Camps)

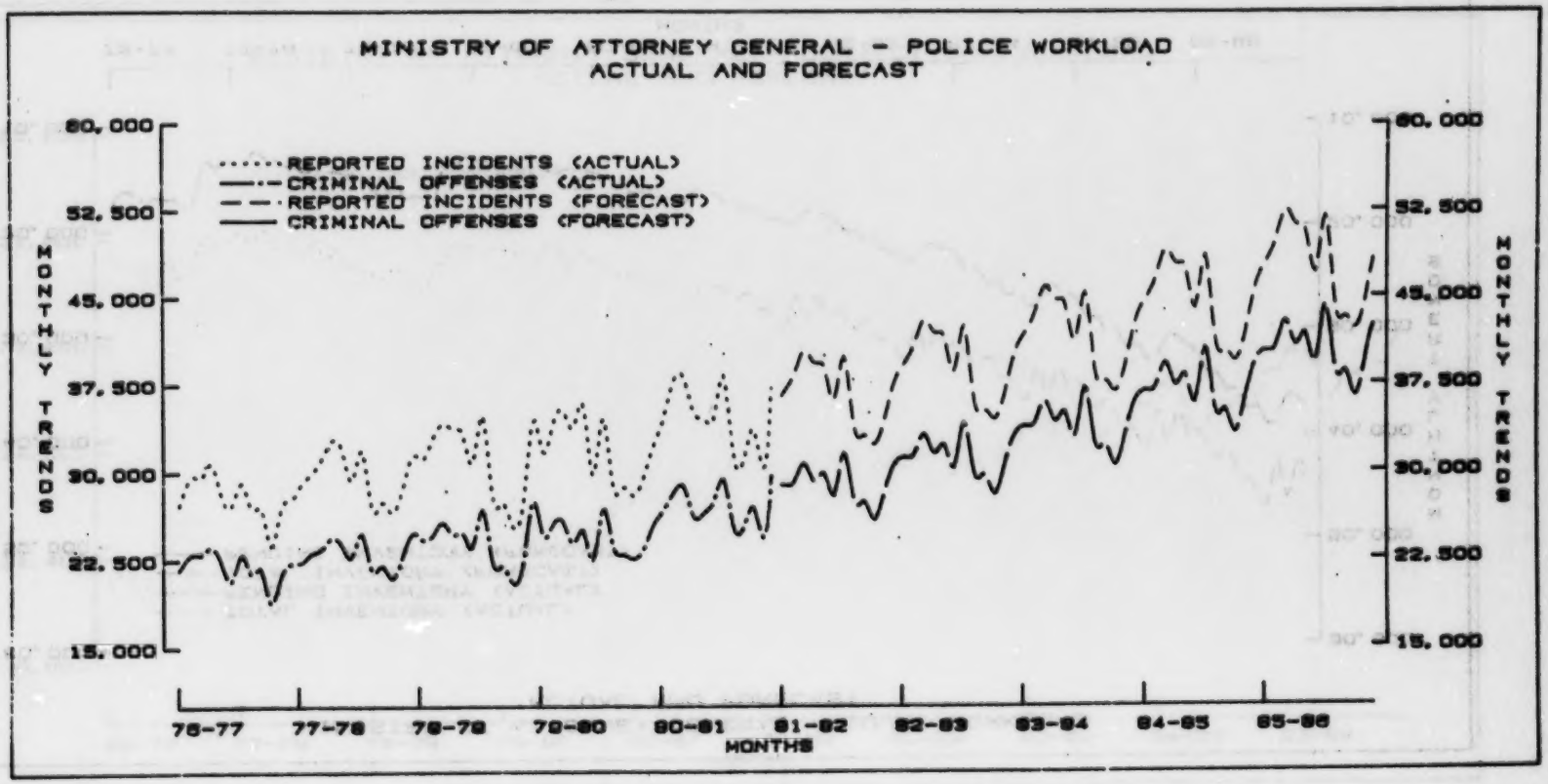
C.C.C. - Community Correctional Centres
C.B.R.C. - Community Based Residential

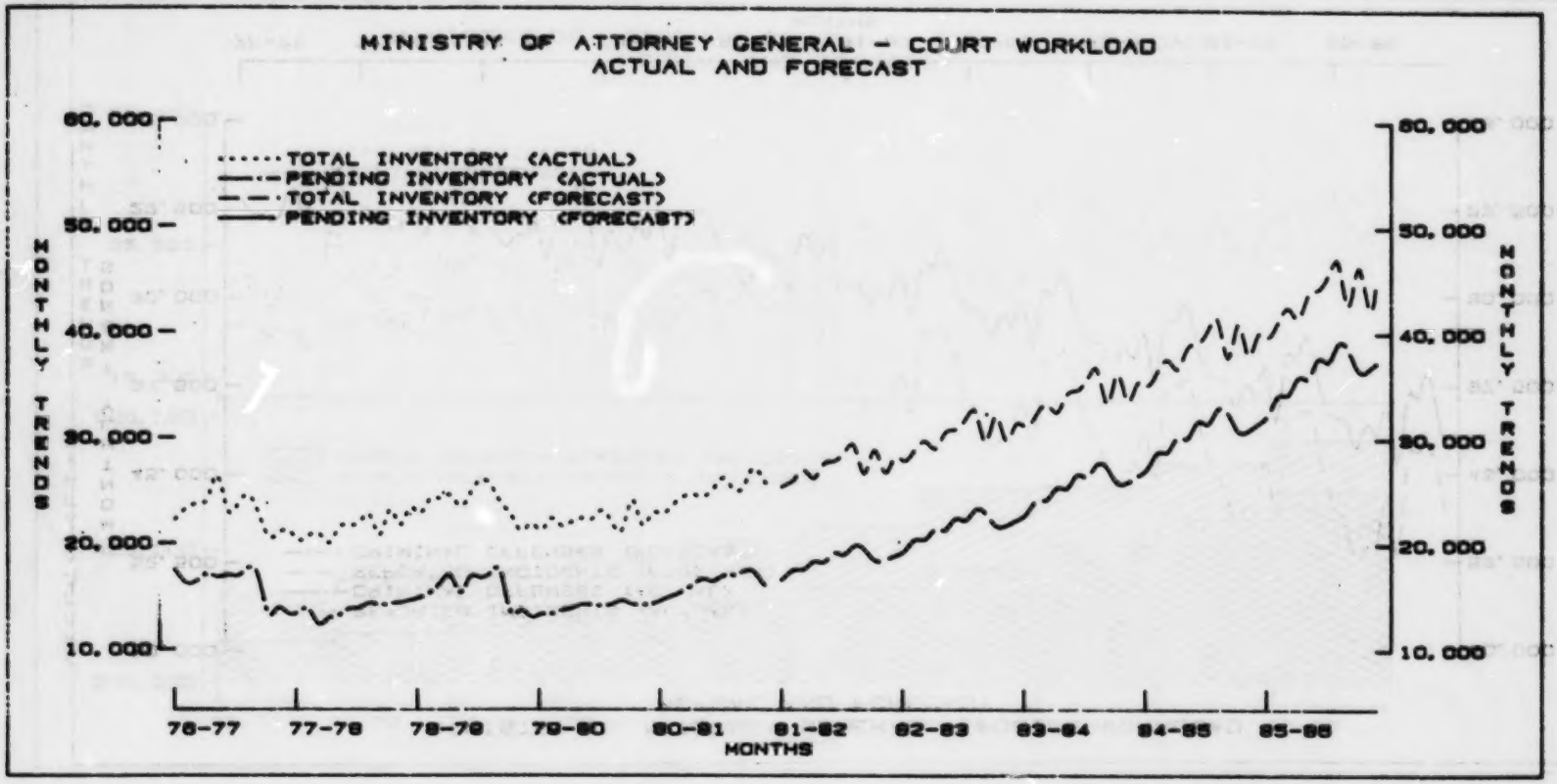
PROJECTIONS FOR DEMAND (UNADJUSTED)

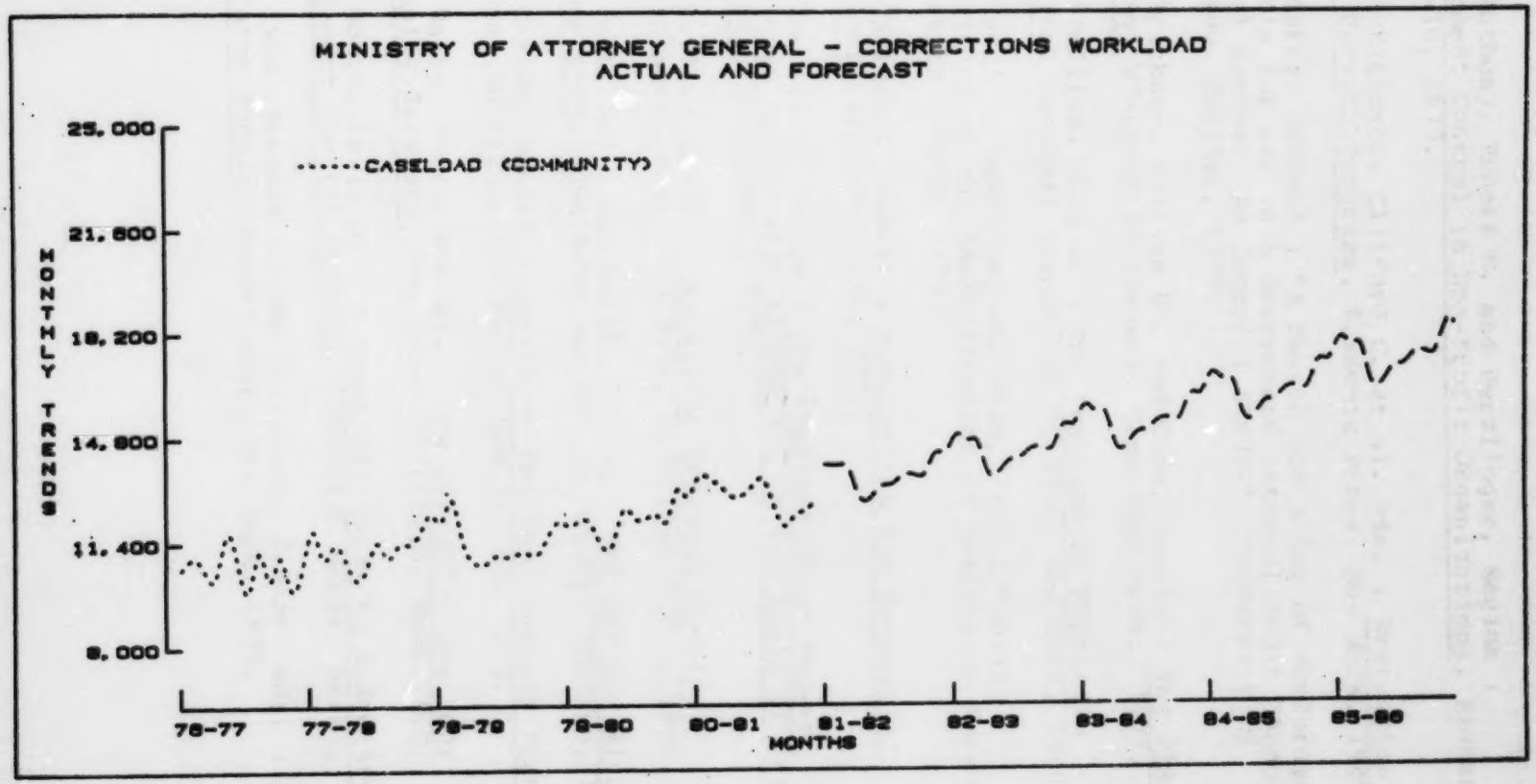


Police = Reported incidents
Courts = New Cases
Community = Probation and Parole
Institutions = Sentenced Only
Criminal = Total Criminal Code


MINISTRY OF ATTORNEY GENERAL - POLICE WORKLOAD
ACTUAL AND FORECAST
MONTHLY TRENDS
55,000
35,000
15,000
REPORTED INCIDENTS
CRIMINAL OFFENSES
YEARLY VOLUME
600,000
400,000
200,000
YEARLY VOLUME - REPORTED INCIDENTS
YEARLY VOLUME - CRIMINAL OFFENSES
76-77
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
MONTHS


MINISTRY OF ATTORNEY GENERAL - POLICE WORKLOAD
ACTUAL AND FORECAST
REPORTED INCIDENTS (ACTUAL)
CRIMINAL OFFENSES (ACTUAL)
REPORTED INCIDENTS (FORECAST)
CRIMINAL OFFENSES (FORECAST)
MONTHLY TRENDS
60.000
52.500
45.000
37.500
30.000
22.500
15.000
76-77
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
MONTHS


MINISTRY OF ATTORNEY GENERAL - COURT WORKLOAD
ACTUAL AND FORECAST
TOTAL INVENTORY (ACTUAL)
PENDING INVENTORY (ACTUAL)
TOTAL INVENTORY (FORECAST)
PENDING INVENTORY (FORECAST)
MONTHLY TRENDS
60,000
50,000
40,000
30,000
20,000
10,000
76-77
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
MONTHS


MINISTRY OF ATTORNEY GENERAL - CORRECTIONS WORKLOAD
ACTUAL AND FORECAST
CASELOAD (COMMUNITY)
MONTHLY TRENDS
25,000
21,600
18,200
14,800
11,400
8,000
76-77
77-78
78-79
79-80
80-81
81-82
82-83
83-84
84-85
85-86
MONTHS

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*While these references reflect the major ones utilized during Project Four, they are by no means the only ones. In october of 1980, the National Criminal Justice Reference Service performed a computer search of their holdings for the topic "Performance Evaluation and Performance Measures". This search restulted in 167 citations and abstracts. This work was lodged with N.W.G. as a project deliverable and is available from the Canadian Center for Justice Statistics in Ottawa.